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DATA REPORT FOR TESTS ON THE HEAT TRANSFER
EFFECTS OF THE 0.0175-SCALE
ROCKWELL INTERNATIONAL SPACE SHUTTLE VEHICLE MODEL
22-0T IN THE AEDC 50-INCH B WIND TUNNEL (OH4B)

VOLUME 2 OF 3

SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANagement services

SPACE DIVISION



CHRYSLER
CORPORATION

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VOLUME 2 OF 3

By

T. F. Foster and W. J. Grifall,
Rockwell International Space Division
W. Martindale, AEDC

Prepared under NASA Contract Number NAS9-13247

By

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for

Engineering Analysis Division
Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

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ABSTRACT

Results of wind tunnel heat transfer tests of 0.0175-scale Rockwell International Space Shuttle Vehicle configurations for orbiter alone, tank alone, and orbiter plus external tank are presented in this report. Body flap shielding of SSME's during simulated entry was also investigated.

The tests were conducted at Mach 8 for thirteen Reynolds number per foot values ranging from 0.5×10^6 to 3.72×10^6 .

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COEFFICIENT SCHEDULE:

- A: HI/HO, HU/HO vs X/LT
- B: HI/HO, HU/HO vs X/L
- C: HI/HO, HU/HO vs X/C
- D: HU/HO vs X/C
- E: HI/HO vs X/L
- F: HU/HO vs X/L
- G: HU/HO vs X

NOTE: A large volume of working data plots were generated and released by the Data Management Services during initial data processing activities. However, for documentation purposes, only a small representative selection of plots are included. The data will remain on file and be available for any future applications.

INTRODUCTION

The experimental investigation described in this report was performed to obtain aerodynamic heating rate data in both ascent and entry flight regimes of the Space Shuttle Vehicle. Second stage ascent interference heating was investigated with the orbiter alone, tank alone and orbiter plus external tank configurations at angles of attack of -10° , -5° , 0° , and 5° and sideslip angles of 0° and -2° .

Orbiter entry heating data was obtained over an angle of attack range of 25° to 45° for sideslip angles of 0° and 5° . Effects of control surface deflections and body flap nozzle shielding were also investigated.

The test program was conducted in the Arnold Engineering Development Center VKF 50-inch B tunnel at Mach 8 for free-stream Reynolds number per foot values from 0.5×10^6 to 3.72×10^6 .

NOMENCLATURE

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
b		model skin thickness, span, in
c		chord, in
c_p		specific heat of model material, BTU/lbm - °R
h		heat transfer coefficient, BTU/ft ² -sec-°R
h_{ref}	HREF	reference heat transfer coefficient, BTU/ft ² -sec-R
h_i/h_o	HI/HO	ratio of interference heat transfer coefficient to stagnation heat transfer coefficient
h_i/h_u	HI/HU	ratio of interference heat transfer coefficient to undisturbed heat transfer coefficient
h_u/h_o	HU/HO	ratio of undisturbed heat transfer coefficient to stagnation heat transfer coefficient
H		enthalpy, BTU/lbm
r	HAW/HT	adiabatic wall temperature ratio, T_{aw}/T_o (recovery factor). NOTE: Where HAW/HT = 0.0 in displayed data, the heat transfer coefficient has been calculated using a recovery factor calculated from $T_{aw}/T_o = (0.867 + 0.133 \sin^{1.55} \delta)$, where $\delta = (\alpha + \theta)$. Alpha is the model angle of attack and theta is local surface angle.
L		length, in
M	MACH	Mach number
Re	RN/L	unit Reynolds number, per foot
t		time, sec
T		temperature, °R
T_o		stagnation temperature, °R
T_i		initial temperature, °R

NOMENCLATURE - Continued

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
T_{aw}		adiabatic wall temperature, °R
Q_i		initial heat transfer rate, BTU/sec
T/C		thermocouple
W		model material density, lbm/ft ³
x	X	axial distance from nose to corresponding component, in
x/c	X/C	chordwise location, fraction of local chord
x/L	X/L	longitudinal location, fraction of length
y	Y	spanwise distance from centerline, in
x/LT	X/LT	longitudinal location on tank, fraction of length
z	Z	waterplane distance, in
$2Y/B$	$2Y/B$	spanwise location of semispan
Z/BV	Z/BV	vertical tail location, fraction of height
δ_a		aileron deflection angle, degrees
δ_{BF}	B.FLAP	body flap deflection angle, degrees
δ_r		rudder deflection angle, degrees
β	Beta	sideslip angle, degrees
α	ALPHA	angle of attack, degrees
δ_e	ELEVON	elevon deflection angle, degrees
ϕ	PHI	radial loaction on tank, degrees
ϕ	PHIN	radial location on orbiter nozzle, degrees

NOMENCLATURE - Concluded

Subscripts

aw	adiabatic wall condition
i	initial condition
O	Orbiter
T	tank
V	vertical tail
w	wall conditions
o	stagnation conditions

REMARKS

During the course of mated configuration testing, it was felt that the forward canopy to wing bottom surface seam may have affected transition. This seam was repaired with dental plaster and 48 transition study runs were made at the end of the test with the orbiter alone configuration. These runs (177-224) consisted of eleven Re/ft values at two angles of attack, and demonstrated that the seam did not prematurely trip the boundary layer.

The original run schedule did not include obtaining data from the 11 T/C's on the windshield, but during the test high heating rates were observed in the canopy area. Therefore, three runs (#31, 32, and 33) were added to the run schedule to obtain this data. The first 11 T/C's of the data acquisition system switch position No. 1 were replaced with the windshield T/C's for these runs.

CONFIGURATIONS INVESTIGATED

The 22-OT model is a 0.0175-scale replica of the Vehicle 3 configuration Rockwell International Space Shuttle Orbiter and external tank per Drawing Number VL70-000139. The model was a thin skin thermocouple model instrumented with 428 iron-constantan thermocouples and was sting mounted through the orbiter base. The tank was sting mounted to the orbiter sting.

Provisions were made to test elevon deflections of 0° , $+5^\circ$, $+10^\circ$; body flap deflections of 0° , $+10^\circ$; and rudder flare angles of 0° and 40° . Entry orbiter nozzle heating data was obtained by replacing the orbiter main sting with an instrumented base plate and nozzle and an offset sting mounted through the vertical tail area. The offset sting simulated a rudder flare deflection angle of 40° .

The main model structure is 15-5 PH stainless steel with instrumented areas of 15-5 PH and 17-7 PH. Thermocouple locations and local skin thicknesses are presented in Table 4. The model instrumentation reference system is described in Figure 1. The configurations tested are described below with the component definitions given in Table 3.

$B_{17}, C_7, M_4, F_5, W_{103}, E_{22}, V_7, R_5$	Orbiter alone (O_1)
$B_{17}, C_7, M_4, F_5, W_{103}, E_{22}, V_7, R_5, T_{10}$	Orbiter plus tank ($O_1 + T_{10}$)
T_{10}	Tank alone (T_{10})
$B_{17}, C_7, M_4, F_5, W_{103}, E_{22}, V_7, R_5, N$	Descent orbiter alone nozzle heating (O_2)

TEST FACILITY DESCRIPTION

The Arnold Engineering Development Center (AEDC) is an Air Force Facility located in Tullahoma, Tennessee. The tunnel used, Tunnel B, is located in the Von Karman Facility portion of this center. Engineering and other technical operations in this tunnel are performed by contractor personnel of ARO, Inc.

Tunnel B is a continuous, closed circuit, variable density wind tunnel with an axisymmetric contoured nozzle and a 50-inch diameter test section. The tunnel can be operated at a nominal Mach number of 6 or 8 at stagnation pressures from 20 to 300 and 50 to 900 psia, respectively, and at a stagnation temperature of up to 1350°R. The model may be injected into the tunnel for a test run and then retracted for model cooling or model changes without interrupting the tunnel flow.

TEST PROCEDURES

The model was installed upright for second stage testing and offset-sting nozzle heating and transition studies. The orbiter was inverted for entry, orbiter alone testing. All configurations were leveled in both pitch and yaw planes. Yaw angles were obtained by combinations of roll and pitch with the tunnel model support system.

All instrumentation leads were routed internally through the model support apparatus to the data acquisition patching network outside the tunnel. Two hundred ninety one thermocouples were connected to the instrumentation patch board. Since the data acquisition system capability was ninety-seven recorded thermocouples per run, three runs were necessary for one test point. Each run of the test point series corresponded to one switch position (97 channels) of the data acquisition system.

The model was injected into the flow and remained on centerline for approximately one second. After retraction, the model was cooled to an isothermal state by air from high pressure manifolds.

For orbiter transition studies and nozzle heating tests, the orbiter base and main sting were removed and replaced with an instrumented base plate and nozzle. The model was then mounted with an offset sting through the vertical tail area. Only two main engines were simulated and only the left nozzle was instrumented. Shadowgraphs were taken for each run of the program.

DATA REDUCTION

Thermocouple outputs were recorded on magnetic tape at the rate of 20 times per second from the start of the injection cycle until about 4 seconds after the model reached the tunnel centerline. The heat transfer coefficient, h , was computed from the relation

$$h = Wbc_p \frac{d[\ln (\frac{T_o - T_{wi}}{T_o - T_w})]}{dt}$$

where

W = model skin density, lbm/ft³

b = model skin thickness, ft

c_p = model skin specific heat, BTU/lbm - °R

T_{wi} = initial model skin temperature, °R

This relation was derived from the equation

$$h = \frac{Wbc_p \frac{dT_w}{dt}}{T_o - T_w}$$

which neglects conduction losses and the assumptions that h , W , and c_p are constants.

If conduction losses are indeed very small, then

$$\ln \left[\frac{T_o - T_{wi}}{T_o - T_w} \right]$$

versus time is very nearly linear. Even when conduction effects are significant, a small linear portion of the curve can generally be found

at early time. It is for this reason that a linear least squares curve fit of $\ln((T_o - T_{wi})/(T_o - T_w))$, begun as soon as it could be determined that the model had reached uniform flow, was used to compute the derivative

$$\frac{d[\ln (\frac{T_o - T_{wi}}{T_o - T_w})]}{dt}$$

and then h .

The lengths of the curve fits were kept as short as possible and yet be consistent with system noise characteristics. These curve fit lengths are given below:

Range	No. of Points
$32 < \frac{dT_w}{dt}$	5
$16 < \frac{dT_w}{dt} \leq 32$	7
$8 < \frac{dT_w}{dt} \leq 16$	9
$4 < \frac{dT_w}{dt} \leq 8$	13
$2 < \frac{dT_w}{dt} \leq 4$	17
$1 < \frac{dT_w}{dt} \leq 2$	25
$\frac{dT_w}{dt} < 1$	41

REFERENCE

1. Foster, T.F.: Pretest Information for Testing of the 22-0T 0.0175-Scale Thin Skin Thermocouple model in the AEDC 50-inch B Wind Tunnel. Rockwell International Publication Number SD73-SH-0237, September 4, 1973.

TABLE I. - TEST CONDITIONS

TEST : OH4B	DATE : Sept. 1973		
TEST CONDITIONS			
MACH NUMBER	REYNOLDS NUMBER (per unit length)	DYNAMIC PRESSURE (pounds/sq. inch)	STAGNATION TEMPERATURE (degrees Fahrenheit)
8	$0.5 \times 10^6/\text{ft}$	110	800
8	$0.68 \times 10^6/\text{ft}$	140	810
8	$1.0 \times 10^6/\text{ft}$	210	815
8	$1.25 \times 10^6/\text{ft}$	265	825
8	$1.50 \times 10^6/\text{ft}$	325	835
8	$1.75 \times 10^6/\text{ft}$	380	840
8	$2.00 \times 10^6/\text{ft}$	425	840
8	$2.25 \times 10^6/\text{ft}$	500	850
8	$2.50 \times 10^6/\text{ft}$	545	850
8	$2.75 \times 10^6/\text{ft}$	605	860
8	$3.00 \times 10^6/\text{ft}$	675	870
8	$3.35 \times 10^6/\text{ft}$	765	880
8	$3.72 \times 10^6/\text{ft}$	860	880

BALANCE UTILIZED: _____

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	_____	_____	_____
SF	_____	_____	_____
AF	_____	_____	_____
PM	_____	_____	_____
RM	_____	_____	_____
YM	_____	_____	_____

COMMENTS:

TABLE II.

TEST: 0498		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: SEPT. 29, 1973																
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES				NO. OF RUNS	THERMOCOURE HOOKUP SCHEDULE										TEST RUN NUMBERS									
		a	B	RUL	BF	De	M		1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
* (JTK)01	0, T ₁₀	-10	0	3.72	0	0	8	3	10	11	12																	
		-5	0					3	7	8	9																	
		0	0					3	1	2	3																	
		5	0					3	4	5	6																	
(JTK)02		0	-2					3	13	14	15																	
		0	0	3.72				3	1	2	3																	
(JTK)03		-10	0	0.68				3	25	26	27																	
		-5	0					3	21	23	24																	
		0	0					3	16	17	18																	
(JTK)04		5	0					3	19	20	21																	
		0	-2					3	28	29	30																	
(JTK)05		0	0	0.68				3	16	17	18																	
		-10	0	3.72				1																				
		-5	0					1																				
	0, T ₁₀	0	0	3.72	0	0	8	1																				
																		</										

* The first character of the dataset identifier refers to recovery factor used: r=1.0 (R), r=0.9 (A), r=0.85 (B), r=0.0 (C). The fourth character of the dataset identifier identifies component data under consideration: wing data, tank data, orbiter data etc.

0₁ + T₁₀ configuration, Dep. Var. is HI/HO

0₁, 0₂, T₁₀ configurations, Dep. Var. is HU/HO

IDVAR (1) IDVAR (2) NDV

TABLE II. - Continued.

TEST: 0K4B		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: SEPT 29, 1973										
DATA SET IDENTIFIER	CONFIGURATION	SCHED. PARAMETERS/VALUES										NO. OF RUNS	THERMOCouple RUN NO SCHEDULE									
		α	β	R	L	S	B	F	S	C	M		1	2	3	4	5	6	7	8	9	10
0TK006	T10	-10	0	372	0	0	0	8	2													
		-5	0																			
		0	0																			
0TK007		0	-2																			
		0	0	372																		
0TK008		-10	0	068																		
		-5	0																			
		0	0																			
0TK009		0	-2																			
	T10	0	0	068	0	0	8	2														

TABLE II. - Continued.

[illegible]

TEST: CH4B		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: SEPT 29, 1973																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES				NO. OF RUNS	THERMOCouple HOORUP SCHEDULE										TEST RUN NUMBERS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		α	β	3.72	3.72	0	0		8	1	2	3	4	5	6	7	8	9											10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
(JTK)16	C ₁	30	0	3.72	0	0	0	8	1								95																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

TYPE OF DATA

 α OR β

SCHEDULES

IDVAR (1) IDVAR (2) IDVAR (3) IDVAR (4)

TABLE II. - Continued.

TEST: C448		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: SEPT 29, 1973													
DATA SET IDENTIFIER	CONFIGURATION	SCHD. PARAMETERS/VALUES					NO. OF RUNS	THERMOCUPLE HOORCIP SCHEDULE																	
		α	β	RUL	DE	M		1	2	3	4	5	6	7	8	9	10								
UTK(24)	O ₁	35	-5	0.5	10	8	2									137	138								
		30	-5	1	10	T	2									139	140								
		35	-5	0.5			2									135	136								
UTK(25)		30	0	2.0			3									141	142	143							
		35	0	1			3									144	145	146							
UTK(26)		30	-5	1			2									147	148								
		35	-5	2.0			2									149	150								
UTK(27)		25	0	3.72			3									151	152	153							
		30	0	1			3									154	155	156							
		35	0				3									157	158	159							
UTK(28)		25	-5				2									166	167								
	O ₁	30	-5			10	2									164	165								
		35	-5		10	10	2									160	163								
UTK(29)	O ₂	25	0		0	0	1												168						
		30	0	1	T	T	1												169						
		35	0	3.72	0	8	1												170						
TYPE OF DATA																									
α OR β																									
SCHEDULES																									
		IDVAR (1) IDVAR (2) NDV																							

TABLE II. - Continued.

TEST: QX4B		DATA SET / RUN NUMBER COLLATION SUMMARY										DATE: SEPT. 29, 1973																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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		α	β	RUL	28F	Σ	M		1	2	3	4	5	6	7	8	9	10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
UTK030	O ₂	25	0	2.0	0	0	8	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

TABLE II. - Concluded.

[illegible]

TABLE III. - MODEL DIMENSIONAL DATA

MODEL COMPONENT: BODY - B17

GENERAL DESCRIPTION: Fuselage, 3 configuration, lightweight orbiter per

Rockwell lines drawing No. VL70-000139

MODEL SCALE: 0.0175

DRAWING NO.: VL70-000139

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length - In.	<u>1290.3</u>	<u>22.58025</u>
Max. width - In.	<u>267.6</u>	<u>4.6830</u>
Max. depth - In.	<u>244.5</u>	<u>4.27875</u>
Fineness Ratio	<u>4.82175</u>	<u>4.82175</u>
Area - ft ²		
Max. Cross-sectional	<u>386.67</u>	<u>0.11842</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

TABLE III. - Continued.

MODEL COMPONENT: CANOPY - C7

GENERAL DESCRIPTION: Configuration 3 per Rockwell Lines VL70-000139

Insufficient information to complete dimensional data at this time.

MODEL SCALE: 0.0175

DRAWING NUMBER: VL70-000139

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length ($X_0 = 433$ to $X_0 = 670$) - in FS	<u>237</u>	<u>4.148</u>
Max. Width	<u> </u>	<u> </u>
Max. Depth ($Z_0 =$ to $Z_0 = 501$) in FS	<u> </u>	<u> </u>
Fineness ratio	<u> </u>	<u> </u>
Area - ft ²	<u> </u>	<u> </u>
Max. Cross-sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

TABLE III. - Continued.

MODEL COMPONENT: OMS POD - M₄GENERAL DESCRIPTION: Orbital maneuvering system pods located on the orbiter aft fuselage.

MODEL SCALE: 0.0175

DRAWING NUMBER: VL70-000139

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length - In.	<u>346.0</u>	<u>6.0550</u>
Max. Width - In.	<u>108.0</u>	<u>1.890</u>
Max. Depth - In.	<u>113.0</u>	<u>113.0</u>
Fineness Ratio	<u>.</u>	<u></u>
Area - ft ²		
Max cross sectional	<u></u>	<u></u>
Planform	<u></u>	<u></u>
Wetted	<u></u>	<u></u>
Base	<u></u>	<u></u>

C of OMS Pod

WP = 463.9 In. FS; WP 400 + 63.9 = 463.9

BP = 80.0 In. FS

LENGTH: 1214.0 to 1560.0 = 346.0 In. FS

NOTE: M₄ is identical to M₃ of 2A configuration,
except intersection to body.

TABLE III. - Continued.

MODEL COMPONENT: BODY FLAP - F₅

GENERAL DESCRIPTION: 3 Configuration per Rockwell Lines VL70-000139

MODEL SCALE: 0.0175

DRAWING NUMBER: VL70-000139

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length - In.	<u>84.70'</u>	<u>1.48225</u>
Max. width - In.	<u>267.6</u>	<u>4.6830</u>
Max. Depth	<u> </u>	<u> </u>
Fineness Ratio	<u> </u>	<u> </u>
Area - ft ²	<u> </u>	<u> </u>
Max Cross-sectional	<u> </u>	<u> </u>
Planform	<u>142.5195</u>	<u>0.04365</u>
Wetted	<u> </u>	<u> </u>
Base	<u>38.0958</u>	<u>0.01167</u>

-TABLE III. - Continued.

MODEL COMPONENT: WING-W 103

GENERAL DESCRIPTION: Configuration 3 Orbiter per Lines VL70-000139.

NOTE: Same planform as WE7, except dihedral at TE

Scale Model = 0.0175

TEST NO.

DWG. NO. VL70-000139

DIMENSIONS:

FULL-SCALE

MODEL SCALE

TOTAL DATA

Area (Theo.) Ft^2

2690.00

0.82381

Planform

936.68

16.39190

Span (Theo) In.

2.265

2.265

Aspect Ratio

1.177

1.177

Rate of Taper

0.200

0.200

Taper Ratio

3.500

3.500

Dihedral Angle, degrees (@ TE of Elevon)

3.000

3.000

Incidence Angle, degrees

+3.000

+3.000

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

45.000

45.000

Leading Edge

-10.24

-10.24

Trailing Edge

35.209

35.209

0.25 Element Line

Chords:

Root (Theo) B.P.O.O.

689.24

12.06170

Tip, (Theo) B.P.

137.85

2.41238

MAC

474.81

8.30918

Fus. Sta. of .25 MAC

1136.89

19.82558

W.P. of .25 MAC

299.20

5.2360

B.L. of .25 MAC

182.13

3.18728

EXPOSED DATA

Area (Theo) Ft^2

1752.29

0.53664

Span, (Theo) In. BP108

720.68

12.61190

Aspect Ratio

2.058

2.058

Taper Ratio

0.2451

0.2451

Chords

Root BP108

562.40

9.8420

Tip $1.00 \frac{b}{2}$

137.85

2.41238

MAC

393.03

6.87802

Fus. Sta. of .25 MAC

1185.31

20.74292

W.P. of .25 MAC

300.20

5.25350

B.L. of .25 MAC

251.76

2.51580

Airfoil Section (Rockwell Mod NASA)
XXXX-64

Root $\frac{b}{2}$ =

0.10

0.10

Tip $\frac{b}{2}$ =

0.12

0.12

Data for (1) of (2) Sides

Leading Edge Cuff $\frac{b}{2}$

120.33

0.03685

Planform Area Ft^2

560.0

9.800

Leading Edge Intersects Fus M. L. @ Sta

1035.0

18.11250

Leading Edge Intersects Wing @ Sta

TABLE III. - Continued.

MODEL COMPONENT: ELEVON- E22GENERAL DESCRIPTION: 3 configuration per W103 Rockwell Lines DrawingVL70-000139 data for (1) of (2) sides.

SCALE MODEL: 0.0175

DRAWING NUMBER: VL70-000139

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Area - ft ²	<u>205.52</u>	<u>0.06294</u>
Span (equivalent) - In.	<u>353.34</u>	<u>6.18345</u>
Inb'd equivalent chord	<u>114.78</u>	<u>2.00865</u>
Outb'd equivalent chord	<u>55.00</u>	<u>0.96250</u>
Ratio movable surface chord/ total surface chord		
At inb'd equiv. chord	<u>.208</u>	<u>.208</u>
At outb'd equiv. chord	<u>.400</u>	<u>.400</u>
Sweep-back angles, degrees		
Leading edge	<u>0.00</u>	<u>0.00</u>
Trailing edge	<u>- 10.24</u>	<u>- 10.24</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hingeline) - ft ³ (Product of Area Moment)	<u>1548.07</u>	<u>0.00829</u>

TABLE III. - Continued.

MODEL COMPONENT: VERTICAL, V₇ (Lightweight Orbiter Configuration)

GENERAL DESCRIPTION: Centerline vertical tail, double-wedge airfoil with rounded leading edge.

NOTE: Same as V₅ but with manipulator housing removed.

MODEL SCALE: 0.0175

DRAWING NUMBER: VL70-000139, VL70-000095

DIMENSIONS:

FULL SCALE MODEL SCALE

TOTAL DATA

Area (Theo) - ft ²	425.92	0.13044
Planform		
Span (Theo) - In.	315.72	5.52510
Aspect ratio	1.675	1.675
Rate of taper	0.507	0.507
Taper ratio	0.404	0.404
Sweep-back angles, degrees		
Leading edge	45.000	45.000
Trailing edge	26.249	26.249
0.25 Element line	41.130	41.130

Chords:

Root (Theo) WP	268.50	4.69875
Tip (Theo) WP	108.47	1.89822
MAC	199.81	3.49667
Fus. Sta. of .25 MAC	1463.50	25.61125
W.P. of .25 MAC	635.522	11.12164
B.L. of .25 MAC	0.00	0.00

Airfoil section:

Leading wedge angle - deg.	10.000	10.000
Trailing wedge angle - deg.	14.920	14.920
Leading edge radius	2.0	0.0350

Void area - FT²

13.17	0.00403
-------	---------

Blanketed area

0.00	0.00
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TABLE III. - Continued.

COMPONENT DIMENSIONAL DATA

MODEL COMPONENT: RUDDER - R₅GENERAL DESCRIPTION: 2A, 3 and 3A configuration per Rockwell Lines Drawing
VL70-000095

MODEL SCALE: 0.0175

DRAWING NUMBER: VL70-000139, VL70-000095

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Area - ft ²	<u>106.38</u>	<u>0.03258</u>
Span (equivalent) - in.	<u>201.0</u>	<u>3.5175</u>
Inb'd equivalent chord	<u>91.585</u>	<u>1.60274</u>
Outb'd equivalent chord	<u>50.833</u>	<u>0.88958</u>
Ratio movable surface chord/ total surface chord		
At inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep-back angles, degrees		
Leading edge	<u>34.83</u>	<u>34.83</u>
Trailing edge	<u>26.25</u>	<u>26.25</u>
Hingeline	<u>34.83</u>	<u>34.83</u>
Area Moment (normal to hingeline) - ft ³	<u>526.13</u>	<u>0.00282</u>
Product of area and mean chord		

TABLE III. - Continued.

MODEL COMPONENT: EXTERNAL TANK - T₁₀

GENERAL DESCRIPTION: External Oxygen-hydrogen tank, 3 configuration, per
Rockwell Lines drawing VL78-000041 and VL72-000088

MODEL SCALE: 0.0175

DRAWING NUMBER: VL72-000088, VL78-000041

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length - In. (Nose @ $X_T = 309$)	<u>1865</u>	<u>32.63750</u>
Max. width (Dia) - In.	<u>324</u>	<u>5.670</u>
Max. depth	<u>--</u>	<u>--</u>
Fineness Ratio	<u>5.75617</u>	<u>5.75617</u>
Area - ft ²		
Max. Cross-Sectional	<u>572.555</u>	<u>0.17534</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>
WP of Tank Centerline (X_T) In.	<u>400.0</u>	<u>7.00</u>

TABLE III. - Concluded.

MODEL COMPONENT: MPS NOZZLES - N

GENERAL DESCRIPTION: Only the exterior surface of the nozzle was simulated.

MODEL SCALE: 0.0175

DRAWING NUMBER: UL70-000139

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
MACH NO.		
Length - In.		
Gimbal Point to Exit Plane		
Throat to Exit Plane		
Diameter - In.		
Exit		
Throat		
Inlet		
Area - ft ²		
Exit		
Throat		
Gimbal Point (Station) - In.		
Upper Nozzle		
X		
Y		
Z		
Lower Nozzles		
X		
Y		
Z		
Null Position - Deg.		
Upper Nozzle		
Pitch		
Yaw		
Lower Nozzle		
Pitch		
Yaw		

Table IV. -Orbiter T/C Locations.
Model 22-OT

T/C NO.	$\frac{x}{L}$	FULL SCALE			MODEL SCALE			ϕ	SKIN THICK- NESS	REMARKS
		x_o	y	z	x FROM NOSE	y	z			
1	0	238.00	0	--	0	0	--	0	.034	BOTTOM ϕ
2	.005	244.45	▲	▲	.113	▲	▲	▲	.035	▲
3	.010	250.90			.226				.035	
4	.020	263.81			.452				.032	
5	.030	276.71			.677				.033	
6	.040	289.61			.903				.034	
7	.050	302.52			1.129				.033	
8	.060	315.42			1.355				.032	
9	.070	328.32			1.581				.034	
10	.080	341.22			1.806				.035	
11	.090	354.13			2.032				.035	▼
12	.100	367.03			2.258				.034	BOTTOM ϕ
13									—	OPEN
14	.120	392.84			2.710				.035	BOTTOM ϕ
15	.130	405.74			2.935				.035	▲
16	.140	418.64			3.161				.035	
17	.150	431.54			3.387				.034	
18	.160	444.45			3.613				.035	
19	.170	457.35			3.839				.035	
20	.180	470.25			4.064				.035	
21	.190	483.16			4.290				.035	
22	.200	496.06			4.516				.031	
23	.225	528.32			5.081				.031	
24	.250	560.58			5.645				.033	
25	.275	592.83			6.210				.033	
26	.300	625.09			6.774				.032	
27	.325	657.35			7.339				.033	
28	.350	689.60			7.903				.020	
29	.375	721.86			8.468				.028	
30	.400	754.12			9.032				.033	
31	.425	786.38	▼	▼	9.597	▼	▼	▼	.035	▼
32	.450	818.64	0	--	10.161	0	--	0	.034	BOTTOM ϕ

Table IV. (Cont'd) Orbiter

T/C NO.	$\frac{x}{L}$	FULL SCALE			MODEL SCALE			ϕ	SKIN THICKNESS	REMARKS
		x_0	y	z	(x FROM NOSE)	y	z			
33	.475	850.89	0	--	10.726	0	--	0	.030	BOTTOM \mathcal{C}
34	.500	883.15	↑	↑	11.290	↑	↑	↑	.030	↑
35	.525	915.41			11.855				.032	
36	.550	947.66			12.419				.031	
37	.575	979.92			12.984				.029	
38	.600	1012.18			13.548				.028	
39	.625	1044.44			14.113				.028	
40	.650	1076.70			14.677				.033	
41	.675	1108.95			15.242				.035	
42	.700	1141.21			15.806				.034	
43	.725	1173.47			16.371				.035	
44	.750	1205.72			16.935				.035	
45	.775	1237.98			17.500				.034	
46	.800	1270.24			18.064				.035	
47	.825	1302.50			18.624				.035	
48	.850	1334.76			19.193				.033	
49	.875	1367.01			19.758				.033	
50	.900	1399.27			20.322				.034	
51	.925	1431.53			20.887				.035	
52	.950	1463.78			21.451				.032	↓
53	.975	1496.04			22.016				.032	BOTTOM \mathcal{C}
54	1.000	1528.31			22.580				.029	$\frac{x}{L}=1.008 @ \delta_{BF}=10^\circ$.033
55	1.013	1541.56			22.812				.032	$\delta_{BF} 10^\circ$ ONLY
56	1.025	1560.56			23.145				.032	↑ BF
57	1.038	1574.30			23.385			↓	.032	$\delta_{BF} 10^\circ$ ONLY
58	1.050	1592.82			23.709			0	.030	↓ .032
59	.010	250.90			.226			180	.035	TOP \mathcal{C}
60	.025	270.26			.565			↑	.035	↑
61	.050	302.52			1.129			↑	.035	↑
62	.075	334.77			1.694			↑	.033	↑
63	.100	367.03	↓	↓	2.258	↓	↓	↓	.033	↓
64	.125	399.29	0	--	2.823	0	--	180	.031	TOP \mathcal{C}

Table IV. (Cont'd) Orbiter

T/C NO.	$\frac{x}{L}$	FULL SCALE			MODEL SCALE			ϕ	SKIN THICKNESS	REMARKS
		x_o	y	z	FROM NOSE	y	z			
65	.150	431.54	0	--	3.387	0	--	180	.026	TOP ϕ
66	.160	444.45	↑	↑	3.613	↑	↑	↑	.031	↑
67	.170	457.35	↑	↑	3.839	↑	↑	↑	.031	↑
68	.180	470.25	↑	↑	4.064	↑	↑	↑	.030	↑
69	.200	496.06	↑	↑	4.516	↑	↑	↑	.033	↑
70	.250	560.58	↑	↑	5.645	↑	↑	↑	.030	↑
71	.300	625.09	↑	↑	6.774	↑	↑	↑	.030	↑
72	.400	754.12	↑	↑	9.032	↑	↑	↑	.030	↑
73	.500	883.15	↑	↑	11.290	↑	↑	↑	.030	↑
74	.600	1012.18	↑	↑	13.548	↑	↑	↑	.031	↑
75	.700	1141.21	↓	↓	15.806	↓	↓	↓	.032	↓
76	.800	1270.24	0	--	18.064	0	--	180	.030	TOP ϕ
77			29.60	478.00	WINDOW #1	0.518	8.365	--	.035	TOP LEFT
78			12.80	478.00	WINDOW #1	0.224	8.365	--	.035	TOP RIGHT
79			21.20	464.97	↑	0.371	8.137	↑	.033	CENTER
80			34.40	452.00	↓	0.602	7.910	↑	.035	BOTTOM LEFT
81			6.00	452.00	WINDOW #1	0.105	7.910	↑	.034	BOTTOM RIGHT
82			43.20	478.00	WINDOW #2	0.756	8.365	↑	.035	TOP LEFT
83			34.80	478.00	WINDOW #2	0.609	8.365	↑	.035	TOP RIGHT
84			44.80	464.97	↑	0.784	8.137	↑	.035	CENTER
85			59.20	452.00	↓	1.036	7.910	↓	.035	BOTTOM LEFT
86			40.40	452.00	WINDOW #2	0.707	7.910	--	.035	BOTTOM RIGHT
87			62.40	464.97	WINDOW #3	1.092	8.137	140	.032	CENTER
88	.100	367.03	20.00	--	2.258	0.350	--	10	.035	FUSELAGE BOTTOM SURFACE
89	.150	431.54	24.00	--	3.387	0.420	--	10	.035	↑
90	.050	302.52	25.00	↑	1.129	0.438	--	14	.033	↑
91	.200	496.06	25.00	↑	4.516	0.438	↑	11.5	.031	↑
92	.300	625.09	25.00	↑	6.774	0.438	↑	12	.033	↑
93	.200	496.06	50.00	↑	4.516	0.875	↑	24	.034	↑
94	.300	625.09	50.00	↑	6.774	0.875	↑	23	.036	↑
95	.400	754.12	50.00	↓	9.032	0.875	↓	21.5	.026	↓
96	.500	883.15	50.00	--	11.290	0.875	--	21.5	.026	FUSELAGE BOTTOM SURFACE

Table IV. (Cont'd) Orbiter

T/C NO.	$\frac{x}{L}$	FULL SCALE			MODEL SCALE			ϕ	SKIN THICKNESS	REMARKS
		x_o	y	z	x FROM NOSE	y	z			
97	.600	1012.18	50.00		13.548	0.875		21.5	.021	FUSELAGE SIDE
98	.700	1141.21	50.00		15.806	0.875		↑	.033	
99	.800	1270.24	50.00		18.064	0.875		↓	.033	
100	.900	1399.27	50.00		20.322	0.875		21.5	.034	FUSELAGE SIDE
101	1.000	1528.30	100.00		22.580	1.75		39	.031	BODY FLAP $10^\circ = .034$
102	1.050	1592.82	100.00		23.704	1.75		39	.028	BODY FLAP $12^\circ = .033$
103	.100	367.03	39.20		2.258	0.686		20	.033	FUSELAGE SIDE
104	.150	431.54	40.80		3.387	0.714		20	.031	
105	.050	302.52		303.60	1.129	--	5.313	22	.031	C.C.L. TANGENT
106	.100	367.03	52.00	--	2.258	0.910		24.5	.033	↑
107	.150	431.54	62.00	--	3.387	1.085	--	25.5	.031	↓
108	.200	496.06	65.60	287.20	4.516	1.148	5.026	21.5	.035	C.C.L. TANGENT
109	.300	625.09	74.46	--	6.774	1.303		34	.033	
110	.200	496.06	75.60	292.00	4.516	1.323	5.110	35	.030	
111	.150	431.54	79.20	304.80	3.387	1.386	5.334	40	.030	
112	.200	496.06	85.20	298.80	4.516	1.491	5.229	40	.034	
113	.300	625.09	91.43		6.774	1.600		40	.026	
114	.300	625.09	102.86		6.774	1.800		45	.023	
115	.050	302.52		325.60	1.129		5.698	35	.030	M.H.B. TANGENT
116	.100	367.03		317.60	2.258		5.558	39	.030	M.H.B. TANGENT
117	.150	431.54	83.60	314.4	3.387	1.463	5.502	45.5	.030	M.H.B. TANGENT
118	.200	496.06		320.00	4.516		5.600	51	.030	
119	.300	625.09		330.00	6.774		5.775	57.5	.021	
120	.300	625.09		340.00	6.774		5.950	61	.027	
121	.076	336.51		350.00	1.724		6.125	--	.030	RCS CENTER
122	.300	625.09		350.00	6.774		6.125	65	.026	
123	.800	1270.24		350.00	18.064		6.125	65	.017	
124	.900	1399.27		350.00	20.322		6.125	65	.033	
125	.975	1496.04		350.00	22.016		6.125	68	.034	
126	.975	1496.04		300.00	22.016		5.250	52.5	.032	
127	.050	302.52		342.40	1.129		5.992	25	.030	TANGENT (UPPER)

Table IV. (Cont'd) Orbiter

T/C NO.	$\frac{x}{L}$	FULL SCALE			MODEL SCALE			ϕ	SKIN THICK- NESS	REMARKS
		x_0	y	z	x FROM NOSE	y	z			
128	.200	496.06	--	360.00	4.516	--	6.300	67.5	.026	FUSELAGE SIDE
129	.300	625.09	--	360.00	6.774		6.300	70	.023	↑
130	.600	1012.18		375.14	13.548		6.565	77	.031	
131	.050	302.52		378.40	1.129		6.622	60	.035	45° TANGENT
132	.100	367.03		410.00	2.258		7.175	119	.034	↓
133	.200	496.06		410.00	4.516		7.175	96.5	.028	
134	.300	625.09		430.00	6.774		7.525	106	.032	FUSELAGE SIDE
135	.400	754.12		430.00	9.032		↑	105	.033	UPPER BODY
136	.500	883.15		430.00	11.290		↑	↑	.032	↑
137	.600	1012.18		430.00	13.548		↓	↓	.032	
138	.700	1141.21		430.00	15.806		↓	↓	.032	
139	.800	1270.24		430.00	18.064		7.525		.032	
140	.900	1399.27		370.00	20.322		6.475		.033	
141	.300	625.09		478.80	6.774		8.379	135	.031	
142	.400	754.12			9.032			135	.030	
143	.500	883.15			11.290			135	.033	
144	.600	1012.18			13.548			135	.033	
145	.700	1141.21			15.806			135	.032	
146	.600	1012.18		445.0	13.548		7.788	113	.032	
147	.600	1012.18		440.0	13.548		7.70	112	.032	
148	.750	1205.73		450.00	15.806		7.875	116	.032	↓
149	.750	1502.73		490.00	15.806		8.575	149	.034	UPPER BODY
150	.400	754.12			9.032			59.5	.031	WING UPPER CREASE
151	.500	883.15			11.290			63	.012	↑
152	.600	1012.18			13.548			65.5	.030	↓
153	.700	1141.21			15.806			64	.030	
154	.900	1399.27		332.0	20.322			—	.034	WING UPPER CREASE

Table IV. (Continued) Orbiter

T/C NO.	$\frac{2y}{b}$	$\frac{x}{c}$	FULL SCALE		MODEL SCALE		SKIN THICKNESS	REMARKS
			x_0	y	x_0	y		
155	.250	.025	640.650	117.085	7.043	2.049	.031	WING BOTTOM
156	↑	.153	754.120	↑	9.030	↑	.035	SURFACE
157	↑	.299	883.150	↑	11.288	↑	.028	↑
158	↑	.444	1012.180	↑	13.545	↑	.023	
159	↑	.590	1141.200	↑	15.802	↑	.034	
160	↓	.736	1270.230	↓	18.060	↓	.034	
161	.250	.900	1415.900	117.085	20.613	2.049	.034	
162	.301		754.000		9.030		.023	30° ROLL DOWN
163	.348		883.000		11.288		.028	30° ROLL DOWN
164	.400	.025	1002.063	187.336	13.364	3.278	.035	
165	↑	.100	1039.750	↑	14.031	↑	.034	
166	↑	.200	1090.000	↑	14.900	↑	.034	
167	↑	.302	1141.210	↑	15.802	↑	.035	
168	↑	.559	1270.230	↑	18.060	↑	.032	
169	↓	.700	1341.250	↓	19.307	↓	.032	
170	.400	.900	1441.750	187.336	21.065	3.278	.032	ELEVON
171	.500		1067.470	234.170	14.516	4.098	.033	30° ROLL DOWN
172	↑	.025	1077.913	↑	14.696	↑	.035	
173	↑	.177	1141.210	↑	15.802	↑	.030	
174	↑	.300	1192.450	↑	16.706	↑	.031	
175	↑	.487	1270.230	↑	18.060	↑	.034	
176	↑	.600	1317.428	↑	18.895	↑	.034	
177	↓	.700	1359.028	↓	19.618	↓	.033	
178	↓	.900	1442.350	234.170	21.075	4.098	.033	ELEVON
179	.600	.100	1152.000	281.004	15.995	4.918	.033	
180	↑	.200	1188.00	↑	16.625	↑	.031	
181	↑	.300	1224.000	↑	17.255	↑	.026	
182	↑	.428	1270.230	↑	18.064	↑	.026	↓
183	↓	.600	1332.000	↓	19.145	↓	.027	WING BOTTOM
184	.600	.700	1368.000	281.004	19.775	4.918	.024	SURFACE

Table IV. (Continued) Orbiter

T/C NO.	$\frac{2y}{b}$	$\frac{x}{c}$	FULL SCALE		MODEL SCALE		SKIN THICKNESS	REMARKS
			x_0	y	x (FROM NOSE)	y		
185	.600	.800	1404.000	281.004	20.404	4.918	.035	WING BOTTOM SURFACE
186	.600	.850	1422.000	↑	20.720		.033	ELEVON ↑
187	.600	.90	1440.000	281.004	21.034		.034	
188	.750		1186.5	351.255	16.599	6.147	.035	L.E. ROLLED
189	↑	.025	1193.428	↑	16.720	↑	.035	DOWN 30°
190	↑	.100	1214.228	↑	17.084	↑	.032	
191	↑	.303	1270.230	↑	18.064	↑	.032	
192	↑	.500	1325.028	↑	19.023	↑	.032	
193	↑	.700	1380.400	↑	19.992	↑	.027	
194	↑	.800	1408.100	↑	20.476	↑	.031	
195	↓	.850	1422.000	↓	20.719	↓	.035	
196	.750	.900	1435.800	351.255	20.962	6.147	.035	
197	.850	.100	1255.200	398.089	17.801	6.967	.031	
198	.850	.300	1299.600	398.089	18.578	6.967	.034	
199	.850	.500	1344.000	398.089	19.355	6.967	.032	
200	.900	.60	1373.028	421.506	19.863	7.376	.024	
201	.900	.30	1314.743	421.506	18.846	7.376	.030	
202	.950			444.857		7.785	.035	L.E. ROLLED 30°
203	↑	.050	1295.925	↑	18.514	↑	.035	
204	↑	.100	1303.828	↑	18.652	↑	.035	
205	↑	.300	1335.543	↑	19.207	↑	.024	
206	↑	.500	1367.257	↑	19.762	↑	.022	
207	↓	.700	1398.950	↓	20.316	↓	.035	
208	.950	.900	1430.650	↓	20.870	7.785	.030	
209	.966	0.00	1307.000	452.416	18.708	7.917	.032	L.E.
210	.993	0.00	1398.950	464.914	20.316	8.136	.031	L.E.
211	.600			281.004		4.918	.035	GLIDER B
212	↑			↑		↑	.035	↑
213	↓			↓		↓	.035	↓
214	.600			281.004		4.918	.035	WING BOTTOM SURFACE

Table IV. (Continued) Orbiter

T/C NO.	$\frac{2y}{b}$	$\frac{x}{c}$	FULL SCALE		MODEL SCALE		SKIN THICKNESS	REMARKS
			x_0	y	x (FROM NOSE)	y		
215	.600			281.004		4.918	.035	CLUSTER B SEE FIG. 6
216	.600			281.004		4.918	.035	
217	.600			281.004		4.918	.035	
218	.850			398.089		6.967	.020	CLUSTER C SEE FIG. 6
219	↑			↑		↑	.020	
220	↑			↑		↑	.020	
221	↑			↑		↑	.020	
222	↑			↑		↑	.020	
223	↓			↓		↓	.020	
224	.850			398.089		6.967	.020	
225	.400	.050	1015.114	187.336	13.599	3.278	.025	WING TOP SURFACE
226	↑	.200	1090.428	↑	14.918	↑	.024	
227	↓	.600	1291.171	↓		↓	.033	
228	.400	.950	1466.875	187.336		3.278	.031	ELEVON
229	.600	.050	1134.886	281.004	15.696	4.918	.032	
230	.600	.200	1188.657	↑	16.637	↑	.031	
231	.600	.600	1332.028	↑	19.146	↑	.0	
232	↑	.800	1404.000	↓	20.404	↓	.032	ELEVON
233	↓	.900	1440.000	↓	21.034	↓	.034	
234	.600	.950	1458.000	281.004	21.349	4.918	.033	
235	.800	.050	1223.057	374.672	17.239	6.557	.033	
236	↑	.200	1260.257	↑	17.889	↑	.033	
237	↑	.600	1359.514	↑	19.627	↑	.032	
238	↑	.800	1408.780	↑	20.488	↑	.030	ELEVON
239	↓	.900	1433.690	↓	20.924	↓	.030	ELEVON
240	.800	.950	1446.145	374.672	21.192	6.557	.030	ELEVON

Table IV. (Continued)

Orbiter

T/C NO.	x [FULL SCALE			MODEL SCALE			ϕ	SKIN THICKNESS	REMARKS
		x_0	y	z	x (FROM NOSE)	y	z			
241	.829	1307			18.715				.026	BOTTOM CREASE OF CMS
242	.900	1399.27			20.318				.035	BOTTOM CREASE OF CMS
243	.975	1496.04			22.011				.030	BOTTOM CREASE OF CMS
244	1.000	1528.3			22.575				.034	BOTTOM OF RCS
245	1.014	1547.0			22.902				.035	BOTTOM OF RCS
246	.780	1245	95.0	474.0	17.608	1.662	8.295	127.9	.032	CMS PODS
247	.805	1276	112.9	474.0	18.173	1.976	8.295	123.8	.031	↑
248	.829	1307	124.5	474.0	18.715	2.179	8.295	120.8	.031	
249	.862	1350	132.6	↑	19.460	2.320	8.295	119.1	.035	
250	.963	1480	142.5		21.740	2.494	8.295	117.5	.028	
251	1.000	1528.3	142.5	↓	22.575	2.494	8.295	117.5	.033	
252	1.014	1547.0			22.902		8.295		.033	
253	.805	1276	105.5	488	18.173	1.846	8.540	129.5	.032	
254	.829	1307	117.0	498.7	18.715	2.048	8.727	130.0	.033	
255	.862	1350	126.5	506	19.460	2.214	8.855	130.0	.031	
256	.963	1480	134.5	513	21.740	2.354	8.978	130.0	.028	
257	1.000	1528.3		500	22.575		8.750		.031	↓
258	1.014	1547.0		500	22.902		8.750		.032	
259	.805	1276	95.0	494.3	18.173	1.662	8.650	135.0	.033	
260	.829	1307	95.0	511.0	18.715	1.662	8.942	139.0	.034	
261	.862	1350	95.0	521.0	19.460	1.662	9.118	142.1	.031	
262	.963	1480	95.0	530.0	21.740	1.662	9.275	144.0	.027	
263	.862	1350	65	517.5	19.460	1.138	9.056	151.2	.031	
264	.963	1480	65	527.0	21.740	1.138	9.222	153	.026	CMS PODS

Table IV. (Continued) Orbiter

T/C NO.	$\frac{z}{b_v}$	$\frac{x}{c}$	FULL SCALE		MODEL SCALE		SKIN THICKNESS	REMARKS
			x_0	z	x (FROM NOSE)	z		
265	.159	.100	1353.00	550.20	19.513	9.628	.030	VERTICAL TAIL
266	↑	.300	1421.51	550.20	20.361	9.628	.030	
267	↓	.700	1498.66	550.20	22.062	9.628	.028	↑
268	.299	0.00		594.40		10.402	.033	
269	↑	.100	1394.94	↑	20.246	↑	.031	L.E.
270		.300	1439.00	↑	21.018	↑	.031	
271		.500	1483.06	↓	21.789	↓	.031	
272	↓	.700	1527.11	↓	22.559	↓	.022	
273	.299	.900	1571.17	594.40	23.330	10.402	.022	
274	.532	0.00		667.96		11.689	.034	L.E.
275	↑	.100	1538.31	↑	22.755	↑	.031	
276		.300	1574.94	↑	23.396	↑	.032	
277		.500	1611.57	↓	35.034	↓	.032	
278	↓	.700	1648.14	↓	24.677	↓	.023	
279	.532	.900	1684.77	667.96	25.318	11.689	.026	
280	.765	0.00		741.53		12.977	.034	L.E.
281	.765	.100	1461.00	↑	21.403	↑	.031	
282	↑	.300	1490.14	↑	21.912	↑	.031	
283		.500	1519.29	↓	22.423	↓	.030	
284	↓	.700	1548.43	↓	22.933	↓	.024	
285	.765	.900	1577.57	741.53	23.142	12.977	.024	
286	.905	0.00		785.73		13.750	.033	L.E.
287	.905	.100	1576.49	785.73	23.424	13.750	.030	↓
288	.905	.500	1625.86	785.73	24.288	13.750	.030	
								VERTICAL TAIL

Table IV. Orbiter Left Main Nozzle T/C Locations
Model 22-OTS

T/C NO.	x FROM EXIT PLANE		ϕ_n CLOCKWISE LOOKING FORWARD	
	F.S.	M.S.	SKIN THICKNESS	0° BOTTOM \angle
301	5"	0.088	.031	0°
302	↓	↓	.031	25°
303	↓	↓	.031	45°
304	↓	↓	.031	65°
305	↓	↓	.031	90°
306	↓	↓	.031	135°
307	↓	↓	.031	315°
308	10"	0.175	.031	0°
309	↓	↓	.031	25°
310	↓	↓	.031	45°
311	↓	↓	.031	65°
312	↓	↓	.031	90°
313	15"	0.263	.031	0°
314	↓	↓	.031	45°
315	↓	↓	.031	90°
316	25"	0.438	.031	0°
317	↓	↓	.031	45°
318	↓	↓	.031	65°
319	↓	↓	.031	90°
320	45"	0.788	.031	45°
321			.032	BASE PLATE
322			.034	↓
323			.031	↓
324			.032	↓

Table IV. External Tank Locations

T/C NO.	x_T FS	x_{ms}^*	$\frac{x}{L}$	θ	SKIN THICKNESS	REMARKS
501	383.60	1.306	.040	0°	.034	NOSE
502	458.20	2.6110	.080		.034	NOSE
503	588.75	4.896	.150		.035	NOSE
504	1055.00	13.055	.400		.035	
505	1428.00	19.582	.600		.034	
506	1801.00	26.110	.800	0°	.035	
507	1055.00	13.055	.400	45°	.035	
508	1241.50	16.319	.500		.035	
509	1428.00	19.582	.600		.034	
510	1614.50	22.846	.700		.034	
511	1801.00	26.110	.800		.035	
512	1987.5	29.374	.900	45°		
513	868.5	9.791	.300	67.5°		
514	961.75	11.423	.350			
515	1055.00	13.055	.400		.035	
516	1241.50	16.319	.500		.034	
517	1428.00	19.582	.600			
518	1521.25	21.214	.650			
519	1614.50	22.846	.700		.034	
520	1707.75	24.478	.750		.035	
521	1801.00	26.110	.800			
522	1987.5	29.374	.900	67.5°		
523	682.00	6.528	.200	90°		
524	775.25	8.159	.250			
525	821.88	8.975	.275			
526	868.50	9.791	.300			
527	915.12	10.607	.325			
528	961.75	11.423	.350		.035	
529	1055.00	13.055	.400		.034	
530	1148.25	14.687	.450		.035	
531	1241.5	16.319	.500		.034	
532	1334.75	17.951	.550		.035	
533	1428.00	19.582	.600	90°	.034	

*MEASURED FROM NOSE

Table IV. (Continued)
(External Tank)

T/C NO.	x_T FS	x_{ms}^*	$\frac{x}{L}$	θ	SKIN THICKNESS	REMARKS
534	1521.25	21.214	.650	90°	.034	
535	1614.50	22.846	.700	↑	.034	
536	1707.75	24.478	.750	↑	.035	
537	1801.00	26.110	.800	↓	.035	
538	1894.25	27.742	.850	↓	.034	
539	1987.50	29.374	.900	90°		
540	821.88	8.975	.275	112.5°	.035	
541	868.50	9.791	.300	↑	↑	
542	915.12	10.607	.325	↑	↑	
543	961.75	11.423	.350	↑	↓	
544	1055.00	13.055	.400	↑	↓	
545	1148.25	14.687	.450	↑	.035	
546	1241.50	16.319	.500	↑	.034	
547	1334.75	17.951	.550	↑	.035	
548	1428.00	19.582	.600	↑	.034	
549	1521.25	21.214	.650	↑	.034	
550	1614.50	22.846	.700	↑	.034	
551	1707.75	24.478	.750	↑	.035	
552	1801.00	26.110	.800	↓	↑	
553	1894.25	27.742	.850	↓	↓	
554	1987.50	29.374	.900	112.5°	.035	
555	1847.62	26.926	.825	123°	.034	
556	1894.25	27.742	.850	↑	.035	
557	1940.88	28.558	.875	↑	.034	
558	1987.50	29.374	.900	↓	.035	
559	2034.12	30.190	.925	↓	.035	
560	2099.40	31.332	.960	123°	.034	
561	915.12	10.607	.325	135°	.035	
562	961.75	11.423	.350	↑	↑	
563	1008.38	12.239	.375	↑	↓	
564	1055.00	13.055	.400	↑	↓	
565	1148.25	14.687	.450	↑	.035	
566	1241.50	16.319	.500	↑	.034	
567	1334.75	17.951	.550	↑	.035	
568	1428.00	19.582	.600	↓	.034	
569	1521.25	21.214	.650	135°	.034	

*MEASURED FROM NOSE

Table IV. (Continued)
(External Tank)

T/C NO.	x_T FS	x_{ms}^*	$\frac{x}{L}$	θ	SKIN THICKNESS	REMARKS
570	1614.50	22.846	.700	135°	.035	
571	1707.75	24.478	.750	↑	.034	
572	1801.00	26.110	.800	↓	.035	
573	1894.25	27.742	.850		.034	
574	1987.50	29.374	.900	↓	.035	
575	2052.78	30.576	.935	135°		
576	1055.00	13.055	.400	151	.035	
577	1101.62	13.871	.425	157	↑	
578	1148.25	14.687	.450	↑	↓	
579	1194.88	15.503	.475	↑	.035	
580	1241.50	16.319	.500	↑	.034	
581	1334.75	17.951	.550	↑	.035	
582	1428.00	19.582	.600	↑	.034	
583	1521.25	21.214	.650	↑	.034	
584	1614.50	22.846	.700	↑	.035	
585	1707.75	24.478	.750	↑	.035	
586	1801.00	26.110	.800	↑	.035	
587	1894.25	27.742	.850	↓	.034	
588	1987.50	29.374	.900	157	.034	
589	1101.62	13.871	.425	161	.035	
590	1241.50	16.319	.500	165°	.034	
591	1614.50	22.846	.700	165°	.035	
592	1987.50	29.374	.900	165°	.034	
593	1055.00	13.055	.400	165°	.035	
594	309.00	0.000	0.000	180	.033	NOSE
595	318.32	0.163	.005	↑	.033	
596	327.65	0.326	.010	↓	.034	
597	383.60	1.306	.040	↓	.033	
598	458.20	2.611	.080	180°	.035	↓

*MEASURED FROM NOSE

Table IV. (CONTINUED)
(External Tank)

T/C NO.	x_T FS	x_{ms}^*	$\frac{x}{L}$	θ	SKIN THICKNESS	REMARKS
599	588.75	4.896	.150	180°	.035	
600	682.00	6.528	.200	↑	.034	
601	775.25	8.159	.250		.035	
602	868.50	9.791	.300		↑	
603	961.75	11.423	.350		↓	
604	1008.38	12.239	.375		.035	
605	1055.00	13.055	.400		.034	
606	1101.62	13.871	.425		↑	
607	1148.25	14.687	.450		↓	
608	1194.88	15.503	.475			
609	1241.50	16.319	.500		.034	
610	1288.12	17.135	.525		.035	
611	1334.75	17.951	.550		.035	
612	1381.38	18.767	.575		.034	
613	1428.00	19.582	.600		↑	
614	1474.62	20.398	.625		↓	
615	1521.25	21.214	.650			
616	1567.88	22.030	.675		↓	
617	1614.50	22.846	.700		.034	
618	1707.75	24.478	.750		.035	
619	1801.00	26.110	.800		.035	
620	1894.25	27.742	.850		.035	
621	1987.5	29.374	.900		.034	
622	2056.50	30.581	.937	↓	.034	
623	2127.38	31.822	.975	180°	.034	
624	458.20	2.611	.080	194°	.035	
625	587.75	4.896	.150	196°	.035	
626	868.50	9.791	.300	196°	.035	

*MEASURED FROM NOSE

Table VI. (Concluded)
(External Tank)

T/C NO.	x_T FS	x_{ms}^*	$\frac{x}{L}$	θ	SKIN THICKNESS	REMARKS
627	1241.50	16.319	.500	196°	.034	
628	1614.50	22.846	.700	196°	.034	
629	1987.50	29.374	.900	197°	.034	
630	588.75	4.896	.150	208°	.033	
631	1055.00	13.055	.400	↑	.034	
632	1428.00	19.582	.600	↓	.035	
633	1801.00	26.110	.800	↓	.035	
634	2056.50	30.581		208	.035	
635	1055.00	13.055	.400	216°	.034	
636	1241.50	16.319	.500	216°	.034	
637	1614.50	22.846	.700	216°	.034	
638	933.78	10.934	.335	222.5°	.036	
639	1055.00	13.055	.400	229°	.034	
640	1428.00	19.582	.600	229°	.035	
641	1801.00	26.110	.800	229°	.035	

*MEASURED FROM NOSE

TABLE V.
THERMOCOUPLE HOOKUP SCHEDULE

T/C Schedule 1

<u>Channel No.</u>	<u>T/C No.</u>	<u>Channel No.</u>	<u>T/C No.</u>	<u>Channel No.</u>	<u>T/C No.</u>
1	1	33	34	65	68
2	2	34	35	66	69
3	3	35	36	67	71
4	4	36	37	68	72
5	5	37	38	69	74
6	6	38	39	70	90
7	7	39	40	71	91
8	8	40	41	72	92
9	9	41	42	73	93
10	10	42	43	74	94
11	11	43	44	75	95
12	12	44	45	76	96
13	14	45	46	77	97
14	15	46	47	78	98
15	16	47	48	79	99
16	17	48	49	80	100
17	18	49	50	81	101
18	19	50	51	82	102
19	20	51	52	83	103
20	21	52	53	84	104
21	22	53	54	85	105
22	23	54	56	86	111
23	24	55	58	87	115
24	25	56	59	88	116
25	26	57	60	89	134
26	27	58	61	90	135
27	28	59	62	91	150
28	29	60	63	92	155
29	30	61	64	93	156
30	31	62	65	94	157
31	32	63	66	95	158
32	33	64	67	96	159
				97	160

TABLE V. - Continued.
THERMOCOUPLE HOOKUP SCHEDULE

T/C Schedule 2

<u>Ch-n No.</u>	<u>T/C No</u>	<u>Ch-n No</u>	<u>T/C No</u>	<u>Ch-n No.</u>	<u>T/C No.</u>
1	161	33	193	65	229
2	162	34	194	66	230
3	163	35	195	67	233
4	164	36	196	68	234
5	165	37	197	69	246
6	166	38	198	70	247
7	167	39	199	71	248
8	168	40	200	72	249
9	169	41	201	73	274
10	170	42	202	74	275
11	171	43	203	75	276
12	172	44	204	76	280
13	173	45	205	77	281
14	174	46	206	78	282
15	175	47	207	79	285
16	176	48	208	80	286
17	177	49	209	81	288
18	178	50	210	82	501
19	179	51	211	83	502
20	180	52	212	84	503
21	181	53	213	85	504
22	182	54	214	86	505
23	183	55	215	87	506
24	184	56	216	88	507
25	185	57	217	89	508
26	186	58	218	90	509
27	187	59	219	91	510
28	188	60	220	92	511
29	189	61	221	93	512
30	190	62	222	94	513
31	191	63	223	95	515
32	192	64	224	96	516
				97	517

TABLE V. - Continued.

THERMOCOUPLE HOOKUP SCHEDULE

T/C Schedule 3

Chan No	T/C No	Chan No.	T/C No	Chan No.	T/C No
1	519	33	574	65	609
2	521	34	576	66	610
3	523	35	577	67	611
4	526	36	578	68	612
5	529	37	579	69	613
6	531	38	580	70	614
7	533	39	581	71	615
8	535	40	582	72	616
9	537	41	583	73	617
10	539	42	584	74	618
11	541	43	585	75	619
12	544	44	586	76	620
13	546	45	587	77	621
14	548	46	589	78	622
15	550	47	590	79	623
16	552	48	591	80	624
17	555	49	592	81	625
18	557	50	594	82	626
19	558	51	595	83	627
20	561	52	596	84	628
21	562	53	597	85	629
22	563	54	598	86	630
23	564	55	599	87	631
24	565	56	600	88	632
25	566	57	601	89	633
26	567	58	602	90	634
27	568	59	603	91	635
28	569	60	604	92	636
29	570	61	605	93	637
30	571	62	606	94	638
31	572	63	607	95	639
32	573	64	608	96	640
				97	641

TABLE V. - Continued.

THERMOCOUPLE HOOKUP SCHEDULE

T/C Schedule L

Ch-n No	T/C No	Ch-n No	T/C No	Ch-n No	T/C No
1	77	33	34	65	68
2	78	34	35	66	69
3	79	35	36	67	71
4	80	36	37	68	72
5	81	37	38	69	74
6	82	38	39	70	90
7	83	39	40	71	91
8	84	40	41	72	92
9	85	41	42	73	93
10	86	42	43	74	94
11	87	43	44	75	95
12	12	44	45	76	96
13	14	45	46	77	97
14	15	46	47	78	98
15	16	47	48	79	99
16	17	48	49	80	100
17	18	49	50	81	101
18	19	50	51	82	102
19	20	51	52	83	103
20	21	52	53	84	104
21	22	53	54	85	105
22	23	54	56	86	111
23	24	55	58	87	115
24	25	56	59	88	116
25	26	57	60	89	134
26	27	58	61	90	135
27	28	59	62	91	150
28	29	60	63	92	155
29	30	61	64	93	156
30	31	62	65	94	157
31	32	63	66	95	158
32	33	64	67	96	159
				97	160

TABLE V. - Continued.

THERMOCOUPLE HOOKUP SCHEDULE

T/C Schedule 5

Chn No	T/C No	Chn No	T/C No	Chn No	T/C No
1	Open	33	Open	65	Open
2		34		66	
3		35		67	
4		36		68	
5		37		69	
6		38		70	
7		39		71	
8		40		72	
9		41		73	
10		42		74	
11		43		75	
12		44		76	
13		45		77	
14		46		78	
15		47		79	
16		48		80	
17		49		81	
18		50		82	501
19		51		83	502
20		52		84	503
21		53		85	504
22		54		86	505
23		55		87	506
24		56		88	507
25		57		89	508
26		58		90	509
27		59		91	510
28		60		92	511
29		61		93	512
30		62		94	513
31		63		95	515
32		64		96	516
				97	517

TABLE V. - Continued.

T/C Schedule 6

<u>Chan No</u>	<u>T/C No</u>
1	59
2	60
3	61
4	62
5	63
6	64
7	65
8	66
9	67
10	68
11	69
12	70
13	71
14	72
15	73
16	74
17	75
18	76
19	88
20	89
21	90
22	91
23	92
24	101
25	102
26	103
27	104
28	105
29	106
30	107
31	108
32	109

THERMOCOUPLE HOOKUP SCHEDULE

<u>Chan No</u>	<u>T/C No</u>
33	110
34	111
35	112
36	113
37	114
38	115
39	116
40	117
41	118
42	119
43	120
44	121
45	122
46	123
47	124
48	125
49	126
50	127
51	128
52	129
53	130
54	131
55	132
56	133
57	134
58	135
59	136
60	137
61	138
62	139
63	140
64	141

<u>Chan No</u>	<u>T/C No</u>
65	142
66	143
67	144
68	145
69	146
70	147
71	148
72	149
73	150
74	151
75	152
76	153
77	154
78	155
79	156
80	157
81	158
82	159
83	160
84	161
85	162
86	163
87	164
88	165
89	166
90	167
91	168
92	169
93	170
94	171
95	172
96	173
97	174

7

TABLE V. - Continued.

THERMOCOUPLE HOOKUP SCHEDULET/C Schedule 7

Chan No	T/C No	Chan No	T/C No	Chan No	T/C No
1	175	33	207	65	255
2	176	34	208	66	256
3	177	35	209	67	258
4	178	36	210	68	259
5	179	37	211	69	260
6	180	38	212	70	261
7	181	39	213	71	262
8	182	40	214	72	263
9	183	41	215	73	264
10	184	42	216	74	265
11	185	43	217	75	266
12	186	44	218	76	267
13	187	45	219	77	268
14	188	46	220	78	269
15	189	47	221	79	270
16	190	48	222	80	271
17	191	49	223	81	272
18	192	50	224	82	273
19	193	51	241	83	274
20	194	52	242	84	275
21	195	53	243	85	276
22	196	54	244	86	277
23	197	55	245	87	278
24	198	56	246	88	279
25	199	57	247	89	280
26	200	58	248	90	281
27	201	59	249	91	282
28	202	60	250	92	283
29	203	61	251	93	284
30	204	62	252	94	285
31	205	63	253	95	286
32	206	64	254	96	287
				97	288

TABLE V. - Continued.

THERMOCOUPLE HOOKUP SCHEDULE

T/C Schedule 8

<u>Channel No.</u>	<u>T/C No.</u>	<u>Channel No.</u>	<u>T/C No.</u>	<u>Channel No.</u>	<u>T/C No.</u>
1	1	33	34	65	84
2	2	34	35	66	85
3	3	35	36	67	86
4	4	36	37	68	87
5	5	37	38	69	93
6	6	38	39	70	94
7	7	39	40	71	95
8	8	40	41	72	96
9	9	41	42	73	97
10	10	42	43	74	98
11	11	43	44	75	99
12	12	44	45	76	100
13	14	45	46	77	225
14	15	46	47	78	226
15	16	47	48	79	227
16	17	48	49	80	228
17	18	49	50	81	229
18	19	50	51	82	230
19	20	51	52	83	231
20	21	52	53	84	232
21	22	53	54	85	233
22	23	54	55	86	234
23	24	55	56	87	235
24	25	56	57	88	236
25	26	57	58	89	237
26	27	58	77	90	238
27	28	59	78	91	239
28	29	60	79	92	240
29	30	61	80	93	Open
30	31	62	81	94	↑
31	32	63	82	95	↓
32	33	64	83	96	Open
				97	

TABLE V. - Continued.

THERMOCOUPLE HOOKUP SCHEDULE

T/C Schedule 2

Channel No.	T/C No.	Channel No.	T/C No.	Channel No.	T/C No.
1	301	33	9	65	42
2	302	34	10	66	43
3	303	35	11	67	44
4	304	36	12	68	45
5	305	37	14	69	46
6	306	38	15	70	47
7	307	39	16	71	48
8	308	40	17	72	49
9	309	41	18	73	50
10	310	42	19	74	51
11	311	43	20	75	52
12	312	44	21	76	53
13	313	45	22	77	54
14	314	46	23	78	56
15	315	47	24	79	58
16	316	48	25	80	93
17	317	49	26	81	94
18	318	50	27	82	95
19	319	51	28	83	96
20	319	52	29	84	97
21	321	53	30	85	98
22	322	54	31	86	99
23	323	55	32	87	100
24	324	56	33	88	91
25	1	57	34	89	108
26	2	58	35	90	110
27	3	59	36	91	112
28	4	60	37	92	92
29	5	61	38	93	109
30	6	62	39	94	113
31	7	63	40	95	114
32	8	64	41	96	Open
				97	Open

TABLE V. - Concluded.

THERMOCOUPLE HOOKUP SCHEDULE

T/C Schedule 10

Chan No	T/C No	Chan No	T/C No	Chan No	T/C No
1	155	33	187	65	219
2	156	34	188	66	220
3	157	35	189	67	221
4	158	36	190	68	222
5	159	37	191	69	223
6	160	38	192	70	224
7	161	39	193	71	Open
8	162	40	194	72	
9	163	41	195	73	
10	164	42	196	74	
11	165	43	197	75	
12	166	44	198	76	
13	167	45	199	77	
14	168	46	200	78	
15	169	47	201	79	
16	170	48	202	80	
17	171	49	203	81	
18	172	50	204	82	
19	173	51	205	83	
20	174	52	206	84	
21	175	53	207	85	
22	176	54	208	86	
23	177	55	209	87	
24	178	56	210	88	
25	179	57	211	89	
26	180	58	212	90	
27	181	59	213	91	
28	182	60	214	92	
29	183	61	215	93	
30	184	62	216	94	
31	185	63	217	95	
32	186	64	218	96	
				97	

$L_0 = 1290.3 \text{ IN.}$
 $L_T = 1865.0$
 $b_v = 315.72$
 $b/2 = 468.34$

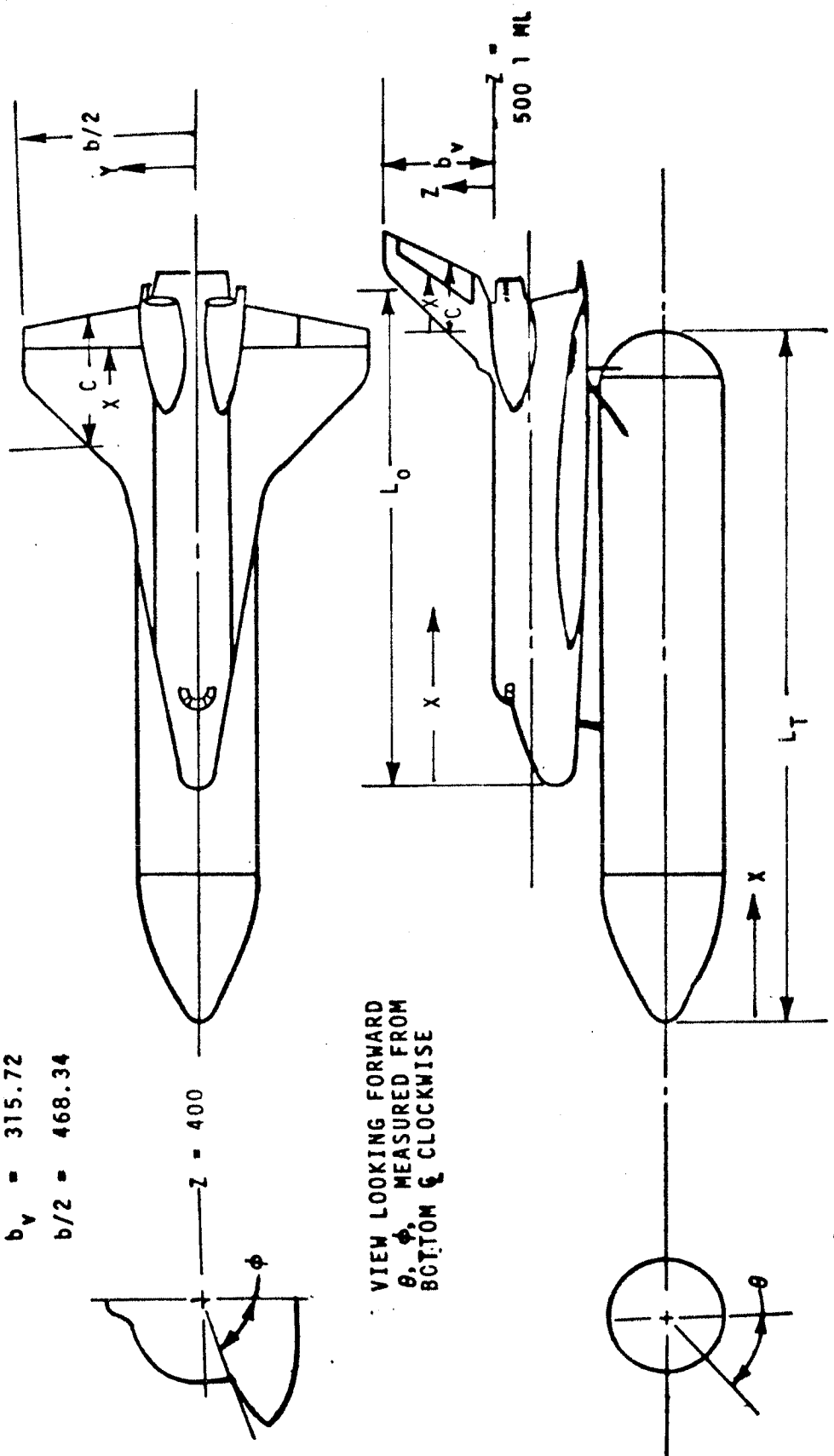
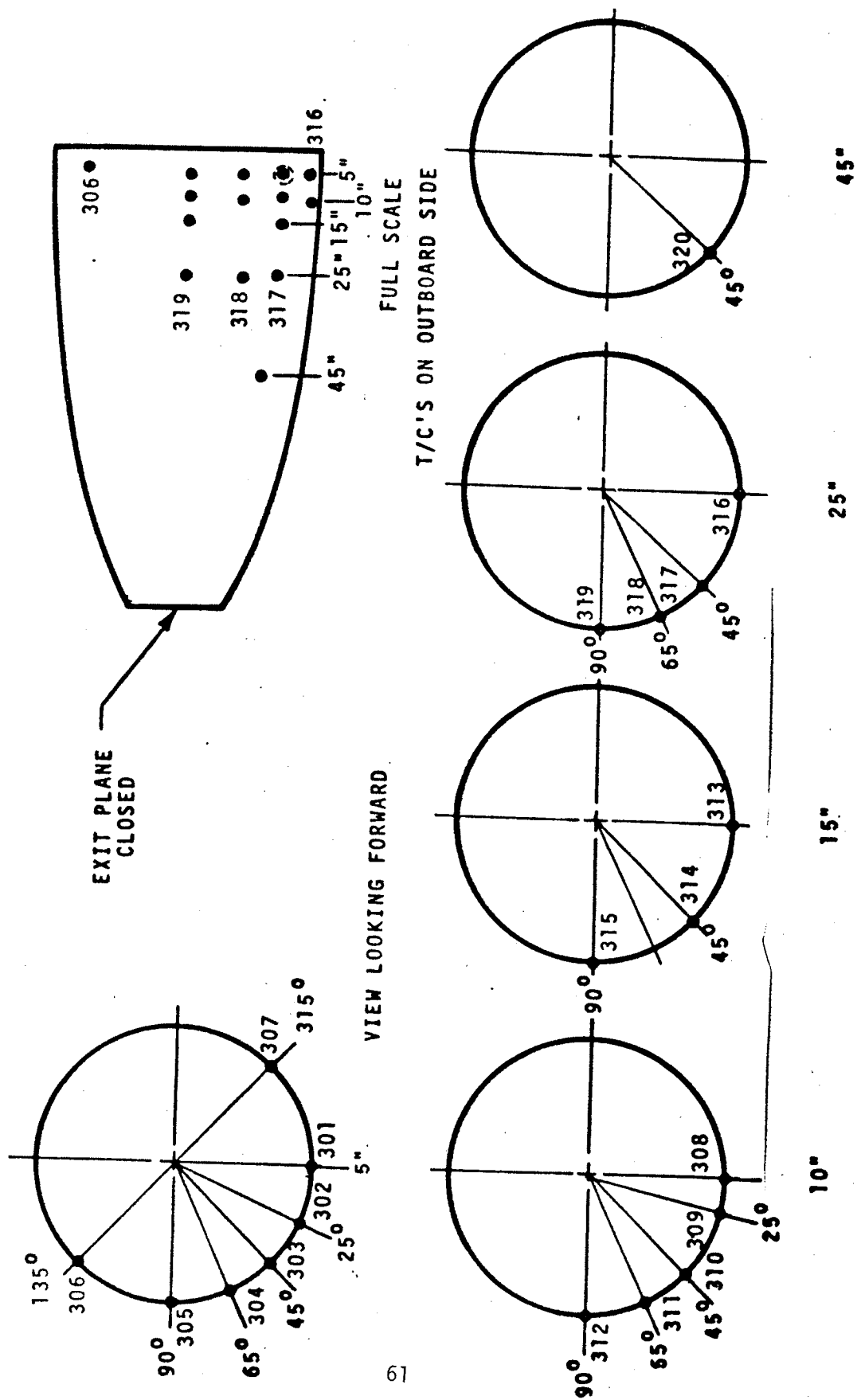
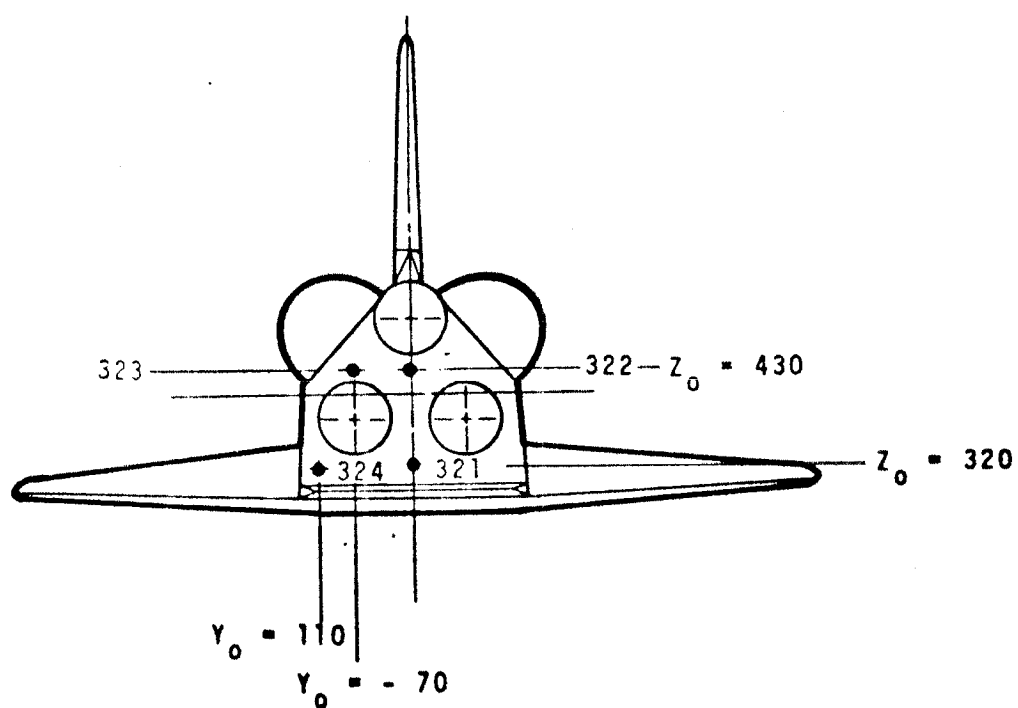


Figure 1. - Model instrumentation reference system.



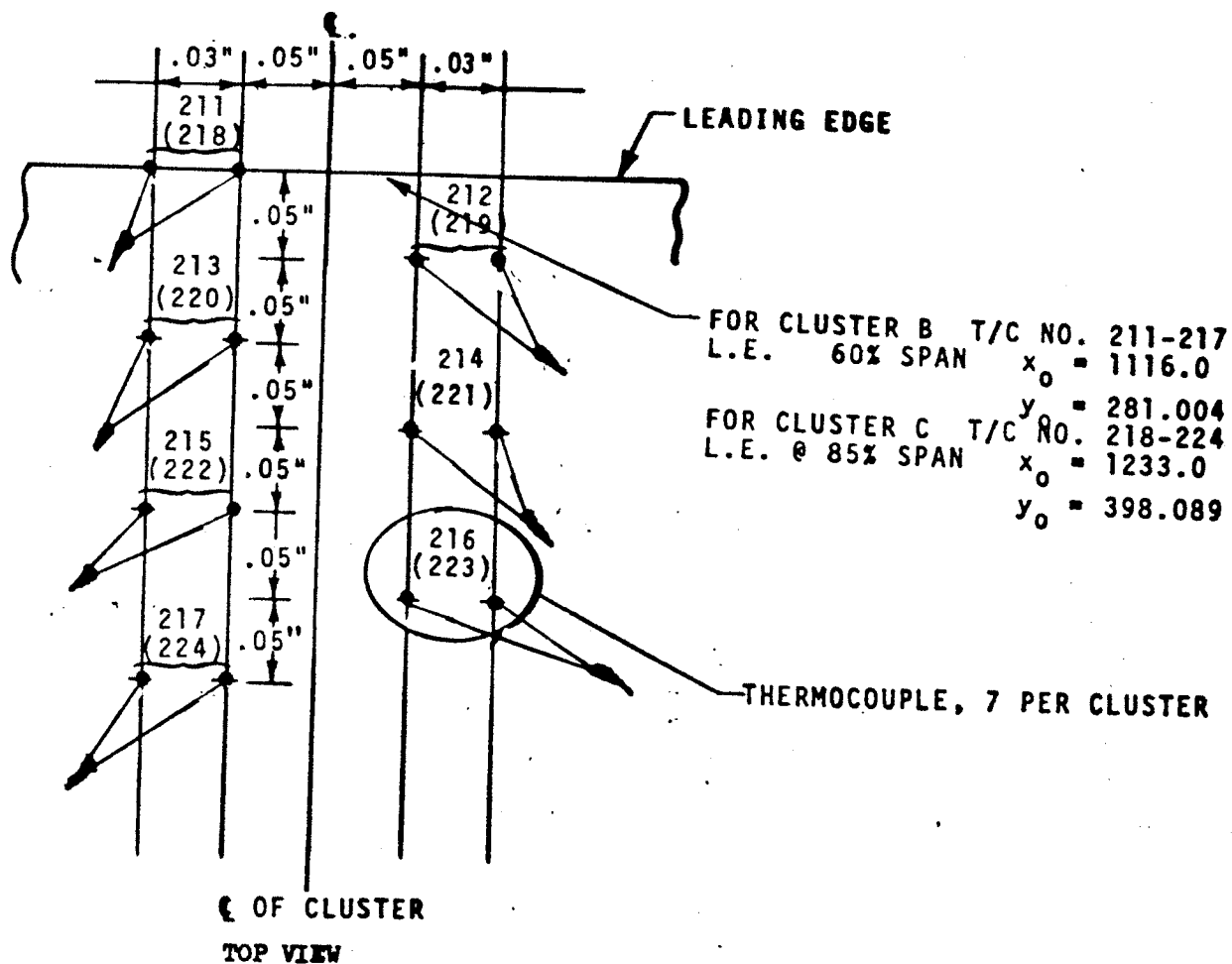
a. 22-OTS Instrumented nozzle

Figure 2. - Orbiter instrumentation.



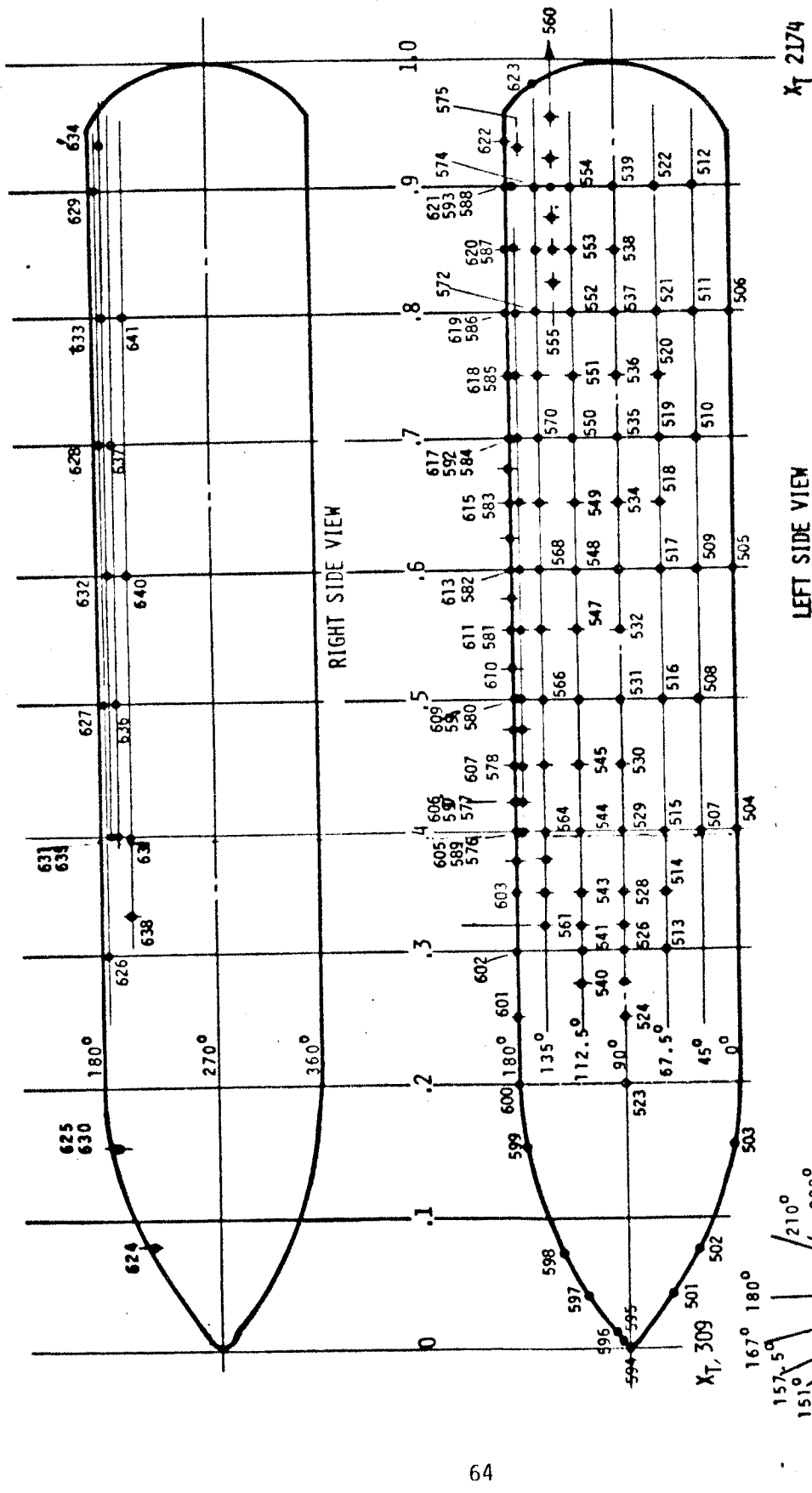
b. Instrumented Nozzle Base Plate
Model 22-OTS

Figure 2. - Continued.



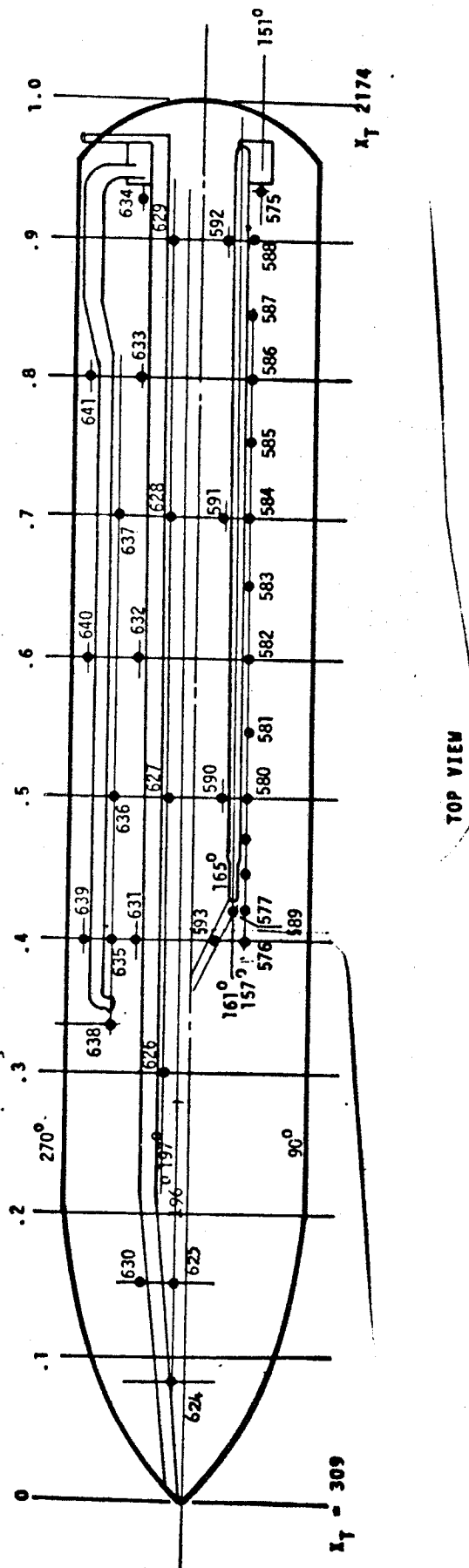
c. Wing Leading Edge Clusters B and C T/C Locations

Figure 2. - Continued.



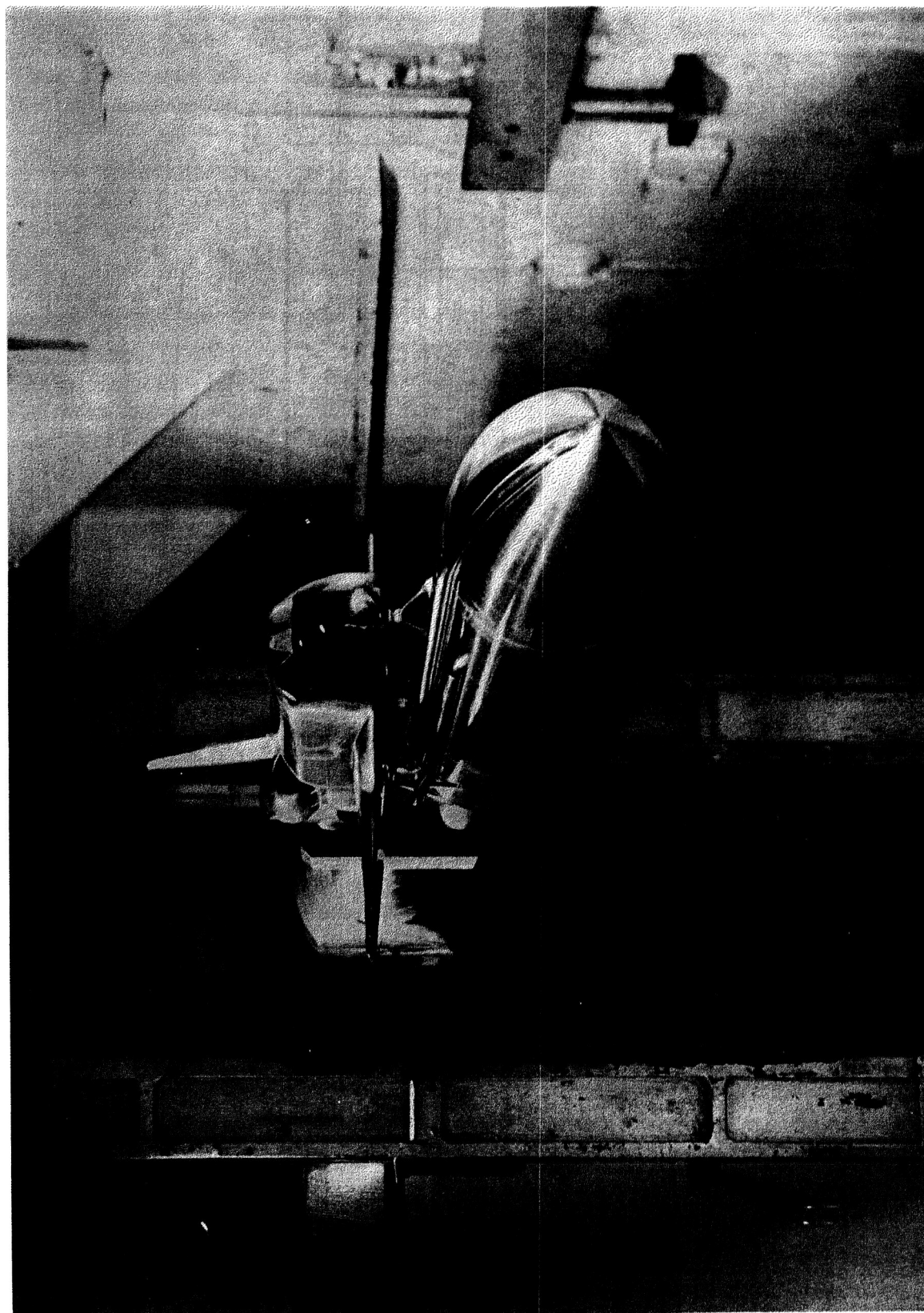
d. External Tank T/C Locations Side Views

Figure 2. - Continued.



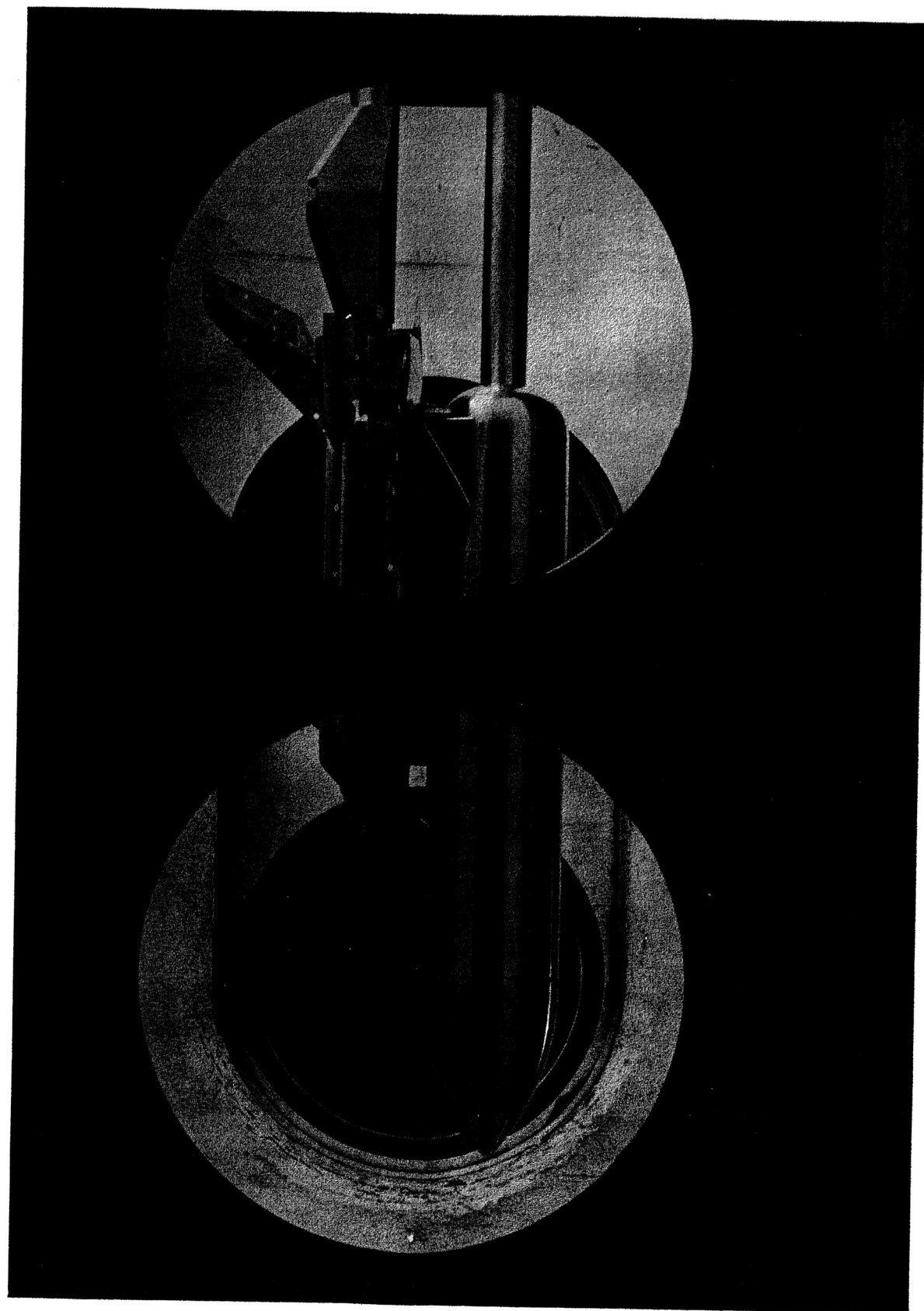
e. External Tank T/C Locations (Locations around plumbing only) Top View

Figure 2. - Concluded.



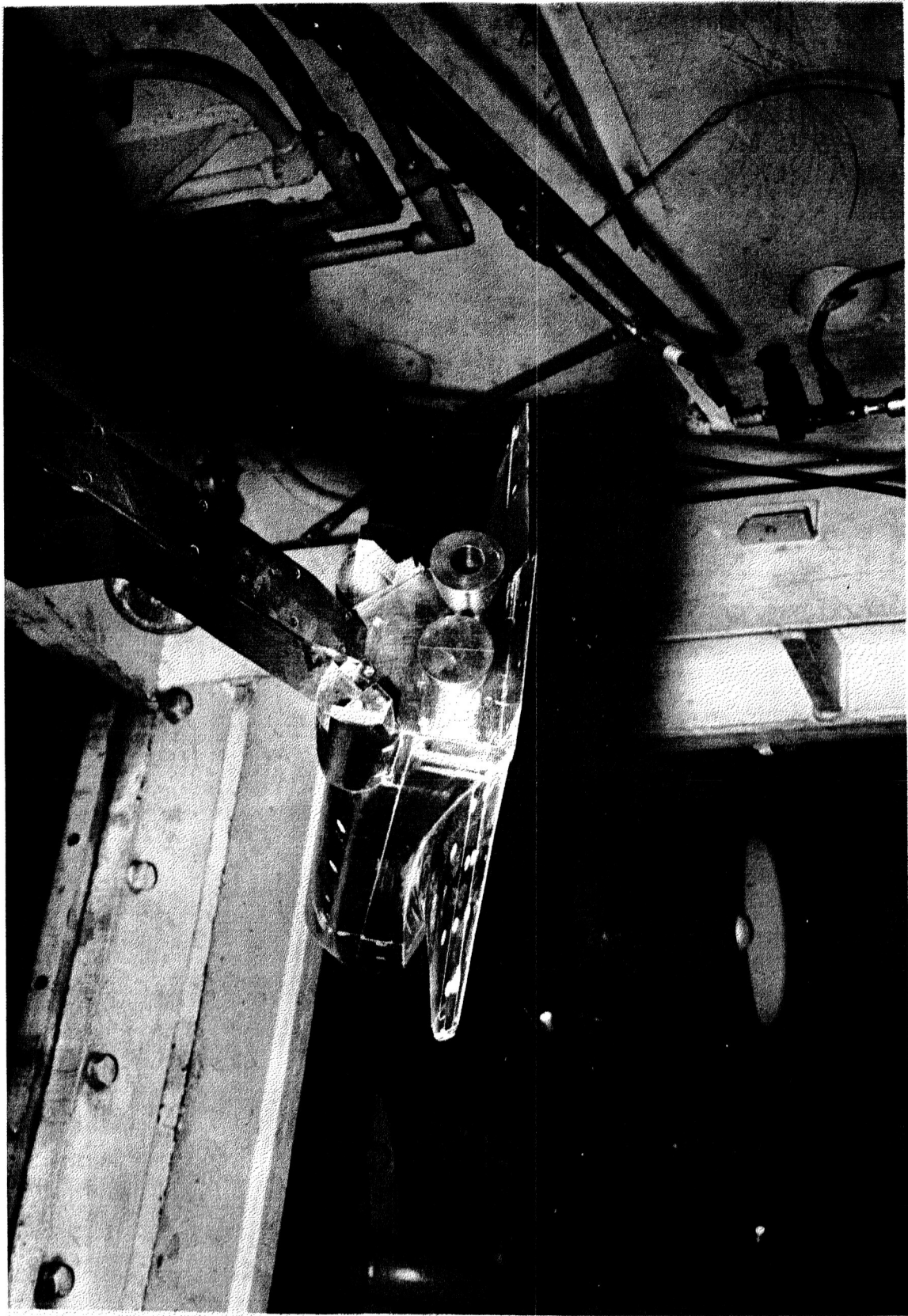
a. Second Stage Configuration Front View

Figure 3. - Model photographs.



b. Second Stage Configuration Side View

Figure 3. - Continued.



c. Re-entry Nozzle Heating Installation

Figure 3. - Concluded.

APPENDIX
TABULATED SOURCE DATA
Recovery Factor = 0.9

Components are designated by the 4th character in the dataset identifier.

T	tank
B	orbiter fuselage
L	bottom wing surface
U	upper wing surface
V	vertical tail
N	left main nozzle
R	RCS center
P	base plate
M	OMS pod
Y	orbiter fuselage, $Y = 0.875$
C	wing upper crease
F	orbiter fuselage, $Y = 7.525$

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 1

AEDC VA352 CH48 01+110 EXTERNAL TANK

(ATK101) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.3803 IN. YMRP = .0000 IN.
 DREF = 18.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B-FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000

TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HI/HO

PHI .0000 45.0000 67.5000 90.0000 112.5000 123.0000 135.0000 151.0000 161.0000 165.0000 180.0000 196.0000 197.0000 208.0000

X/LT

.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005
.010	.010	.010	.010	.010	.010	.010	.010	.010	.010	.010	.010	.010	.010
.040	.040	.040	.040	.040	.040	.040	.040	.040	.040	.040	.040	.040	.040
.080	.080	.080	.080	.080	.080	.080	.080	.080	.080	.080	.080	.080	.080
.190	.190	.190	.190	.190	.190	.190	.190	.190	.190	.190	.190	.190	.190
.200	.200	.200	.200	.200	.200	.200	.200	.200	.200	.200	.200	.200	.200
.290	.290	.290	.290	.290	.290	.290	.290	.290	.290	.290	.290	.290	.290
.275	.275	.275	.275	.275	.275	.275	.275	.275	.275	.275	.275	.275	.275
.300	.300	.300	.300	.300	.300	.300	.300	.300	.300	.300	.300	.300	.300
.325	.325	.325	.325	.325	.325	.325	.325	.325	.325	.325	.325	.325	.325
.350	.350	.350	.350	.350	.350	.350	.350	.350	.350	.350	.350	.350	.350
.375	.375	.375	.375	.375	.375	.375	.375	.375	.375	.375	.375	.375	.375
.400	.400	.400	.400	.400	.400	.400	.400	.400	.400	.400	.400	.400	.400
.425	.425	.425	.425	.425	.425	.425	.425	.425	.425	.425	.425	.425	.425
.450	.450	.450	.450	.450	.450	.450	.450	.450	.450	.450	.450	.450	.450
.475	.475	.475	.475	.475	.475	.475	.475	.475	.475	.475	.475	.475	.475
.500	.500	.500	.500	.500	.500	.500	.500	.500	.500	.500	.500	.500	.500
.525	.525	.525	.525	.525	.525	.525	.525	.525	.525	.525	.525	.525	.525
.550	.550	.550	.550	.550	.550	.550	.550	.550	.550	.550	.550	.550	.550
.575	.575	.575	.575	.575	.575	.575	.575	.575	.575	.575	.575	.575	.575
.600	.600	.600	.600	.600	.600	.600	.600	.600	.600	.600	.600	.600	.600
.625	.625	.625	.625	.625	.625	.625	.625	.625	.625	.625	.625	.625	.625
.650	.650	.650	.650	.650	.650	.650	.650	.650	.650	.650	.650	.650	.650
.675	.675	.675	.675	.675	.675	.675	.675	.675	.675	.675	.675	.675	.675
.700	.700	.700	.700	.700	.700	.700	.700	.700	.700	.700	.700	.700	.700
.750	.750	.750	.750	.750	.750	.750	.750	.750	.750	.750	.750	.750	.750
.800	.800	.800	.800	.800	.800	.800	.800	.800	.800	.800	.800	.800	.800
.825	.825	.825	.825	.825	.825	.825	.825	.825	.825	.825	.825	.825	.825
.850	.850	.850	.850	.850	.850	.850	.850	.850	.850	.850	.850	.850	.850
.875	.875	.875	.875	.875	.875	.875	.875	.875	.875	.875	.875	.875	.875
.900	.900	.900	.900	.900	.900	.900	.900	.900	.900	.900	.900	.900	.900
.925	.925	.925	.925	.925	.925	.925	.925	.925	.925	.925	.925	.925	.925
.935	.935	.935	.935	.935	.935	.935	.935	.935	.935	.935	.935	.935	.935
.937	.937	.937	.937	.937	.937	.937	.937	.937	.937	.937	.937	.937	.937
.960	.960	.960	.960	.960	.960	.960	.960	.960	.960	.960	.960	.960	.960
.975	.975	.975	.975	.975	.975	.975	.975	.975	.975	.975	.975	.975	.975

PHI 216.0000222.5000229.0000

(ATK101)

AEDC VA352 CH48 CH48T10 EXTERNAL TANK

MACH (1) = 8.000 ALPHA (1) = -10.000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HI/HO

PHI 216.0000222, 9000229, 0000

X/LT

.335	.0598
.400	.0680
.500	.1203
.600	.0340
.700	.0487
.800	.0000

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HI/HO

PHI .0000 45.0000 67.9000 90.0000112, 5000123, 0000135, 0000151, 0000157, 0000161, 0000165, 0000180, 0000196, 0000197, 0000208, 0000

X/LT

.000	.8172
.005	.5524
.010	.8378
.040	.2842
.080	.2278
.120	.1324
.160	.0719
.200	.0898
.250	.0274
.275	.0121
.300	.0094
.325	.0349
.350	.0186
.375	.0545
.400	.0691
.425	.0545
.450	.0374
.475	.5608
.500	.0663
.525	.0196
.550	.0924
.575	.1200
.600	.1245
.625	.0856
.650	.0805
.675	.0524
.700	.0345
.750	.0630
.800	.0553
.825	.0524
.850	.0379
.875	.0423
	.0291

.000	.0763
.005	.0932
.010	.0539
.040	.0374
.080	.0437
.120	.0429
.160	.0651
.200	.0257
.250	.0638
.275	.0475
.300	.0322
.325	.0177
.350	.0240
.375	.0246
.400	.0159
.425	.0325
.450	.0119
.475	.0557
.500	.0209

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01+T10 EXTERNAL TANK

(ATKT01)

MACH (1) = 8.000 ALPHA (4) = 5.000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HI/HO

PHI .0000 45.0000 67.5000 90.0000 112.5000 123.0000 135.0000 151.0000 157.0000 161.0000 165.0000 180.0000 196.0000 197.0000 208.0000

X/LT

.350	.0000	.0000	.0000	.0068	.0125	.0188	.0458	.0135
.375	.0161	.0133	.0114	.0054	.0072	.0180	.2234	.1722
.400	.0120	.0078	.0072	.0252	.0253	.0330	.0097	.0415
.425	.0154	.0128	.0000	.0142	.0242	.0350	.0163	.0200
.450	.0125	.0142	.0145	.0190	.0405	.0403	.0116	.0311
.475	.0176	.0120	.0076	.0053	.0256	.0386	.0237	.0255
.500	.0134	.0000	.0188	.0000	.0665	.0267	.0327	.0373
.525					.0267	.0327	.0506	.0733
.550					.0000	.0000	.0000	.0531
.575					.0000	.0000	.0000	.0990
.600					.0000	.0000	.0000	.0116
.625					.0000	.0000	.0000	
.650					.0000	.0000	.0000	
.675					.0000	.0000	.0000	
.700					.0000	.0000	.0000	
.750					.0000	.0000	.0000	
.800					.0000	.0000	.0000	
.825					.0000	.0000	.0000	
.850					.0000	.0000	.0000	
.875					.0000	.0000	.0000	
.900					.0000	.0000	.0000	
.925					.0000	.0000	.0000	
.935					.0000	.0000	.0000	
.937					.0000	.0000	.0000	
.960					.0000	.0000	.0000	
.975					.0000	.0000	.0000	

PHI 216.0000 222.5000 229.0000

X/LT

.355	.0025	.0393	.0358	.0000
.400	.0094	.0722	.0325	
.500				
.600				
.700				
.800				

AEDC VA352 CH48 01+110 EXTERNAL TANK

(ATKT02) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
LREF = 22.9803 IN. YMRP = .0000 IN.
DREF = 16.9919 IN. ZMRP = .0000 IN.
SCALE = .0175 SCALE

MACH (1) = 8.000 BETA (1) = -2.000 YI = 97.350 QI = 3.942 HREF = .049

PARAMETRIC DATA

ALPHA = .000 RN/L = 3.720
S.FLAP = .000 ELEVON = .000
HAW/HT = .900

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HI/HO

PHI .0000 45.0000 67.5000 90.0000 112.5000 123.0000 135.0000 151.0000 157.0000 165.0000 180.0000 196.0000 197.0000 208.0000

X/LT

.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005
.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0010
.0040	.0040	.0040	.0040	.0040	.0040	.0040	.0040	.0040	.0040	.0040	.0040	.0040	.0040
.0060	.0060	.0060	.0060	.0060	.0060	.0060	.0060	.0060	.0060	.0060	.0060	.0060	.0060
.0150	.0150	.0150	.0150	.0150	.0150	.0150	.0150	.0150	.0150	.0150	.0150	.0150	.0150
.0200	.0200	.0200	.0200	.0200	.0200	.0200	.0200	.0200	.0200	.0200	.0200	.0200	.0200
.0250	.0250	.0250	.0250	.0250	.0250	.0250	.0250	.0250	.0250	.0250	.0250	.0250	.0250
.0275	.0275	.0275	.0275	.0275	.0275	.0275	.0275	.0275	.0275	.0275	.0275	.0275	.0275
.0300	.0300	.0300	.0300	.0300	.0300	.0300	.0300	.0300	.0300	.0300	.0300	.0300	.0300
.0325	.0325	.0325	.0325	.0325	.0325	.0325	.0325	.0325	.0325	.0325	.0325	.0325	.0325
.0350	.0350	.0350	.0350	.0350	.0350	.0350	.0350	.0350	.0350	.0350	.0350	.0350	.0350
.0375	.0375	.0375	.0375	.0375	.0375	.0375	.0375	.0375	.0375	.0375	.0375	.0375	.0375
.0400	.0400	.0400	.0400	.0400	.0400	.0400	.0400	.0400	.0400	.0400	.0400	.0400	.0400
.0425	.0425	.0425	.0425	.0425	.0425	.0425	.0425	.0425	.0425	.0425	.0425	.0425	.0425
.0450	.0450	.0450	.0450	.0450	.0450	.0450	.0450	.0450	.0450	.0450	.0450	.0450	.0450
.0475	.0475	.0475	.0475	.0475	.0475	.0475	.0475	.0475	.0475	.0475	.0475	.0475	.0475
.0500	.0500	.0500	.0500	.0500	.0500	.0500	.0500	.0500	.0500	.0500	.0500	.0500	.0500
.0525	.0525	.0525	.0525	.0525	.0525	.0525	.0525	.0525	.0525	.0525	.0525	.0525	.0525
.0550	.0550	.0550	.0550	.0550	.0550	.0550	.0550	.0550	.0550	.0550	.0550	.0550	.0550
.0575	.0575	.0575	.0575	.0575	.0575	.0575	.0575	.0575	.0575	.0575	.0575	.0575	.0575
.0600	.0600	.0600	.0600	.0600	.0600	.0600	.0600	.0600	.0600	.0600	.0600	.0600	.0600
.0625	.0625	.0625	.0625	.0625	.0625	.0625	.0625	.0625	.0625	.0625	.0625	.0625	.0625
.0650	.0650	.0650	.0650	.0650	.0650	.0650	.0650	.0650	.0650	.0650	.0650	.0650	.0650
.0675	.0675	.0675	.0675	.0675	.0675	.0675	.0675	.0675	.0675	.0675	.0675	.0675	.0675
.0700	.0700	.0700	.0700	.0700	.0700	.0700	.0700	.0700	.0700	.0700	.0700	.0700	.0700
.0750	.0750	.0750	.0750	.0750	.0750	.0750	.0750	.0750	.0750	.0750	.0750	.0750	.0750
.0800	.0800	.0800	.0800	.0800	.0800	.0800	.0800	.0800	.0800	.0800	.0800	.0800	.0800
.0825	.0825	.0825	.0825	.0825	.0825	.0825	.0825	.0825	.0825	.0825	.0825	.0825	.0825
.0850	.0850	.0850	.0850	.0850	.0850	.0850	.0850	.0850	.0850	.0850	.0850	.0850	.0850
.0875	.0875	.0875	.0875	.0875	.0875	.0875	.0875	.0875	.0875	.0875	.0875	.0875	.0875
.0900	.0900	.0900	.0900	.0900	.0900	.0900	.0900	.0900	.0900	.0900	.0900	.0900	.0900
.0925	.0925	.0925	.0925	.0925	.0925	.0925	.0925	.0925	.0925	.0925	.0925	.0925	.0925
.0950	.0950	.0950	.0950	.0950	.0950	.0950	.0950	.0950	.0950	.0950	.0950	.0950	.0950
.0975	.0975	.0975	.0975	.0975	.0975	.0975	.0975	.0975	.0975	.0975	.0975	.0975	.0975

PHI 216.0000222.5000229.0000

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1+T10 EXTERNAL TANK (ATKT02)

MACH (1) = 8.000 BETA (1) = -2.000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HI/HO

PHI 216.0000222.5000229.0000

X/LT

.335	.0099
.400	.0385
.500	.0695
.600	.0120
.700	.0356
.800	.0000

MACH (1) = 8.000 BETA (2) = .000

TI = 97.350 Q1 = 3.942 HREF = .049

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HI/HO

PHI .0000 45.0000 67.5000 90.0000112.5000123.0000135.0000151.0000157.0000161.0000163.0000180.0000196.0000197.0000208.0000

X/LT

.000	.8331
.005	.5288
.010	.7669
.040	.2235
.080	.1918
.150	.1154
.200	.0953
.250	.0527
.275	.0174
.300	.0061
.325	.0031
.350	.0229
.375	.0179
.400	.0328
.425	.0376
.450	.1336
.475	.4516
.500	.0495
.525	.0223
.550	.0589
.575	.0630
.600	.0541
.625	.0475
.650	.0399
.675	.0320
.700	.0344
.750	.0298
.800	.0418
.825	.0327
.850	.0313
.875	.0223

(ATKT02)

AEDC VA352 CH48 01+110 EXTERNAL TANK

MACH (1) = 8.000 BETA (2) = .000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HI/HO

PWT .0000 45.0000 87.5000 90.0000 112.5000 125.0000 135.0000 151.0000 157.0000 161.0000 165.0000 180.0000 196.0000 197.0000 208.0000

X/LT

.900 .0184 .0000 .0085 .0000 .0265 .0373 .0000 .0450 .0642 .0465

.925

.935 .0000

.937

.960 .0000

.975

.1073 .0153

PWT 216.0000 222.5000 229.0000

X/LT

.335 .0040

.400 .0296

.500 .1155

.600 .0175

.700 .0420

.800 .0000



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TABULATED DATA LISTING FOR CH48 (AEDC VA392)

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AEDC VA392 CH48 04+110 EXTERNAL TANK

(ATK703) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .680
 B-FLAP = .000 ELEVON = .000
 YAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000

TI = 93.425 QI = .682 HREF = .020

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HI/HO

PHI .0000 45.0000 67.5000 90.0000 112.5000 123.0000 135.0000 151.0000 157.0000 161.0000 165.0000 180.0000 196.0000 197.0000 206.0000

X/LT

.000	.7876
.005	.4628
.010	.6165
.040	.2799
.060	.2937
.150	.1147
.200	.0888
.250	.0304
.275	.0427
.300	.0282
.325	.0242
.350	.0241
.375	.0209
.400	.0257
.425	.0466
.450	.2271
.475	.3157
.500	.0604
.525	.0220
.550	.0717
.575	.0783
.600	.0655
.625	.0506
.650	.0499
.675	.0490
.700	.0444
.750	.0444
.800	.0364
.825	.0284
.850	.0239
.875	.0108
.900	.0109
.925	.0213
.935	.0169
.937	.0108
.960	.1197
.975	.0130

PHI 216.0000 222.5000 229.0000

(ATK03)

AEDC VA352 CH48 01+110 EXTERNAL TANK

MACH (1) = 8.000 ALPHA (1) = -10.000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HI/HO

PHI 216.0000222,5000229,0000

X/LT

.335	.0242
.400	.0625
.500	.1510
.600	.0080
.700	.0300
.800	.0000

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HI/HO

PHI .0000 45.0000 67.5000 90.0000112,5000123,0000135,0000151,0000157,0000161,0000165,0000180,0000196,0000197,0000208,0000

X/LT

.000	.8250
.005	.4348
.010	.6425
.015	.2393
.020	.2046
.025	.0895
.030	.0692
.035	.0299
.040	.0297
.045	.0154
.050	.0087
.055	.0161
.060	.0126
.065	.0229
.070	.0301
.075	.1019
.080	.3290
.085	.0568
.090	.0260
.095	.0462
.100	.0416
.105	.0460
.110	.0418
.115	.0349
.120	.0373
.125	.0394
.130	.0312
.135	.0254
.140	.0221
.145	.0111
.150	.0031
.155	.0227
.160	.0110
.165	.0000
.170	.0000
.175	.0000
.180	.0000
.185	.0000
.190	.0000
.195	.0000
.200	.0000
.205	.0000
.210	.0000
.215	.0000
.220	.0000
.225	.0000
.230	.0000
.235	.0000
.240	.0000
.245	.0000
.250	.0000
.255	.0000
.260	.0000
.265	.0000
.270	.0000
.275	.0000
.280	.0000
.285	.0000
.290	.0000
.295	.0000
.300	.0000
.305	.0000
.310	.0000
.315	.0000
.320	.0000
.325	.0000
.330	.0000
.335	.0000
.340	.0000
.345	.0000
.350	.0000
.355	.0000
.360	.0000
.365	.0000
.370	.0000
.375	.0000
.380	.0000
.385	.0000
.390	.0000
.395	.0000
.400	.0000
.405	.0000
.410	.0000
.415	.0000
.420	.0000
.425	.0000
.430	.0000
.435	.0000
.440	.0000
.445	.0000
.450	.0000
.455	.0000
.460	.0000
.465	.0000
.470	.0000
.475	.0000
.480	.0000
.485	.0000
.490	.0000
.495	.0000
.500	.0000
.505	.0000
.510	.0000
.515	.0000
.520	.0000
.525	.0000
.530	.0000
.535	.0000
.540	.0000
.545	.0000
.550	.0000
.555	.0000
.560	.0000
.565	.0000
.570	.0000
.575	.0000
.580	.0000
.585	.0000
.590	.0000
.595	.0000
.600	.0000
.605	.0000
.610	.0000
.615	.0000
.620	.0000
.625	.0000
.630	.0000
.635	.0000
.640	.0000
.645	.0000
.650	.0000
.655	.0000
.660	.0000
.665	.0000
.670	.0000
.675	.0000
.680	.0000
.685	.0000
.690	.0000
.695	.0000
.700	.0000
.705	.0000
.710	.0000
.715	.0000
.720	.0000
.725	.0000
.730	.0000
.735	.0000
.740	.0000
.745	.0000
.750	.0000
.755	.0000
.760	.0000
.765	.0000
.770	.0000
.775	.0000
.780	.0000
.785	.0000
.790	.0000
.795	.0000
.800	.0000
.805	.0000
.810	.0000
.815	.0000
.820	.0000
.825	.0000
.830	.0000
.835	.0000
.840	.0000
.845	.0000
.850	.0000
.855	.0000
.860	.0000
.865	.0000
.870	.0000
.875	.0000

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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(ATKT03)

MACH (1) = 8.000 ALPHA (2) = -5.000

AEDC VA352 CH48 01+T10 EXTERNAL TANK

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HI/HO

PHI	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	161.0000	165.0000	180.0000	196.0000	197.0000	208.0000
X/LT														
.900		.0047	.0000	.0093	.0000	.0164	.0218	.0000	.0000	.0086	.0180		.0134	
.925						.0000								
.935														
.937								.0000						
.960						.0000				.1539				.0733
.975										.0109				

PHI 216.0000222, 5000229, 0000

X/LT

.335			.0114	
.400	.0466		.0320	
.500	.1019			
.600		.0063		
.700	.0272			
.800		.0000		

MACH (1) = 8.000 ALPHA (3) = .000 TI = 93.425 QI = .662 HREF = .020

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HI/HO

PHI	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	161.0000	165.0000	180.0000	196.0000	197.0000	208.0000
X/LT														
.000														
.005														
.010														
.040														
.1717														
.0977														
.150														
.0327														
.200				.0158										
.250				.0000										
.275				.0000										
.300				.0086		.0000								
.325				.0089	.0093									
.350				.0000	.0000									
.375				.0000	.0000									
.400		.0079	.0068	.0048	.0052		.0038			.0032	.0041			
.425				.0000			.0063			.0098				
.450				.0000	.0000		.0079			.0189				
.475				.0000	.0000		.0081		.0142	.0297				
.500		.0048	.0031	.0059	.0198		.0129		.0166	.0237				
.525							.0151		.0088	.0685				
.550							.0256		.0180	.2663				
.575				.0000	.0000		.0502		.0249	.0484				
								.0407	.0245	.0809				
									.0319	.0289				
									.0383					

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01+110 EXTERNAL TANK

(ATK703)

MACH (1) = 5.000 ALPHA (4) = 5.000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HI/HO

PH1 .0000 45.0000 67.5000 90.0000 112.5000 123.0000 135.0000 151.0000 157.0000 161.0000 165.0000 180.0000 196.0000 197.0000 206.0000

X/LT

.350	.0000	.0000	.0000	.0033	.0071
.375				.0123	.0123
.400	.0154	.0131	.0072	.0032	.0325
.425				.0127	.1458
.450			.0000	.0126	.1031
.475		.0117	.0086	.0039	.0169
.500				.0117	.0150
.525				.0224	.0262
.550			.0000	.0034	.0197
.575			.0000	.0334	.0151
.600	.0142	.0125	.0000	.0033	.0139
.625			.0033	.0270	.0134
.650		.0000	.0000	.0373	.0136
.675			.0000	.0409	.0148
.700		.0118	.0045	.0041	.0153
.750		.0000	.0000	.0238	.0135
.800	.0174	.0113	.0072	.0079	.0140
.825			.0190	.0285	.0128
.850			.0081	.0000	.0096
.875			.0000	.0224	.0201
.900		.0108	.0000	.0079	.0239
.925			.0066	.0098	.0118
.935			.0000	.0330	
.937			.0000	.0000	
.960			.0000		
.975					

PH1 216.0000 222.5000 229.0000

X/LT

.335	.0032
.400	.0020
.500	.0773
.600	.0092
.700	.0087
.800	.0000

(ATKTD4)

MACH (1) = 8.000 BETA (2) = .000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HI/HO

PHI .0000 45.0000 67.5000 90.0000 112.5000 123.0000 135.0000 151.0000 157.0000 161.0000 165.0000 180.0000 196.0000 197.0000 208.0000

X/LT	.900	.925	.935	.937	.960	.975
	.0089	.0000	.0101	.0000	.0114	.0281
				.0000	.0000	.0000
					.0000	.0000
					.0092	.0198
						.0112
						.0728
						.0488
						.0098

PHI 216.0000 222.5000 229.0000

X/LT	.335	.400	.500	.600	.700	.800
	.0032	.0106	.0492		.0215	.0000
			.0095	.0053		
						.0000

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 17

AEDC VA352 CH48 T10 EXTERNAL TANK

(ATKT06) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 18.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000

TI = 97.667 QI = 3.957 HREF = .049

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HU/HO

PHI .0000 45.0000 67.5000 90.0000 112.5000 123.0000 135.0000 151.0000 157.0000 161.0000 165.0000 180.0000 196.0000 197.0000 208.0000

X/LT

.000	.7839													
.005	.4878													
.010	.7208													
.040	.3298													
.080	.3424													
.150	.1018													.0931
.200	.0612													
.250	.0511													
.275	.0683													
.300	.0725													
.325	.0681													
.350	.0662													
.375	.0965													
.400	.3566													
.425	.0812													
.450	.0159													.0444
.475	.0463													
.500	.0799													
.525	.0725													
.550	.0599													
.575	.0574													
.600	.0575													.0281
.625	.0622													
.650	.0569													
.675	.0556													
.700	.0546													.0285
.750	.0368													
.800	.0251													
.825	.0257													
.850	.0202													
.875	.0481													
.900	.0000													
.925	.0272													
.950	.0355													
.975	.0000													
.990	.0439													
.995	.0000													
.999	.0000													
.999	.0519													.0577
.999	.0420													
.999	.1296													.1363
.999	.0208													

PHI 216.0000222.5000229.0000

(ATKT06)

AEDC VA352 CH48 T10 EXTERNAL TANK

MACH (1) = 8.000 ALPHA (1) = -10.000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HU/HO

PHI 216.0000222.5000229.0000

X/LT

.335	.0602
.400	.0893
.500	.0436
.600	.0138
.700	.0253
.800	.0000

MACH (1) = 8.000 ALPHA (2) = -5.000 T1 = 97.667 Q1 = 3.937 HREF = .049

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HU/HO

PHI .0000 45.0000 67.5000 90.0000112.5000123.0000135.0000151.0000157.0000161.0000165.0000180.0000196.0000197.0000208.0000

X/LT

.000	.8203
.005	.5643
.010	.8139
.040	.2764
.080	.2305
.130	.1328
.150	.0721
.200	.0895
.250	.0270
.275	.0128
.300	.0098
.325	.0349
.350	.0135
.375	.0151
.400	.0220
.425	.0501
.450	.3683
.475	.0952
.500	.0248
.525	.0673
.550	.0187
.575	.0625
.600	.0613
.625	.0455
.650	.0379
.675	.0333
.700	.0329
.750	.0266
.800	.0158
.825	.0135
.850	.0113
.875	.0093
.900	.0093
.925	.0452
.950	.0000
.975	.0350
.000	.0259

(ATKT06)

AEDC VA352 CH4B T10 EXTERNAL TANK

MACH (1) = 8.000 ALPHA (2) = -5.000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HU/HO

PHI .0000 45.0000 67.5000 90.0000 112.5000 123.0000 135.0000 151.0000 157.0000 161.0000 165.0000 180.0000 196.0000 197.0000 208.0000

X/LT

.900	.0075	.0000	.0170	.0000	.0279	.0345	.0000	.0429	.0245	.0415
.925					.0000					
.935										
.937										
.960										
.975										

PHI 216.0000 222.5000 229.0000

X/LT

.335	.0463
.400	.0579
.500	.0371
.600	
.700	.0183
.800	.0000

MACH (1) = 8.000 ALPHA (3) = .000 TI = 97.667 QI = 3.957 HREF = .049

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HU/HO

PHI .0000 45.0000 67.5000 90.0000 112.5000 123.0000 135.0000 151.0000 157.0000 161.0000 165.0000 180.0000 196.0000 197.0000 208.0000

X/LT

.000	.8458
.005	.5344
.010	.7353
.040	.2198
.080	.1943
.150	.0531
.200	.0169
.250	.0064
.275	.0055
.300	.0243
.325	.0043
.350	.0054
.375	.0166
.400	.0424
.425	.2938
.450	.0755
.500	.0211
.525	.0476
.550	.0427
.575	.0349

(ATK106)

AEDC VA352 OH48 T10 EXTERNAL TANK

MACH (1) = 8.000 ALPHA (3) = .000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HU/HO

PH1 .0000 45.0000 67.5000 90.0000 112.5000 123.0000 135.0000 151.0000 157.0000 161.0000 165.0000 180.0000 196.0000 197.0000 208.0000

X/LT	.000	.0058	.0061	.0000	.0060	.0218	.0214	.0165	.0300	.0161
.000	.0000	.0058	.0061	.0000	.0060	.0218	.0214	.0165	.0300	.0161
.025	.0000	.0058	.0061	.0000	.0060	.0218	.0214	.0165	.0276	.0161
.050	.0000	.0058	.0061	.0000	.0060	.0218	.0214	.0165	.0248	.0161
.075	.0000	.0058	.0061	.0000	.0060	.0218	.0214	.0165	.0240	.0161
.100	.0000	.0058	.0061	.0000	.0060	.0218	.0214	.0165	.0227	.0114
.125	.0000	.0058	.0061	.0000	.0060	.0218	.0214	.0165	.0238	.0124
.150	.0000	.0058	.0061	.0000	.0060	.0218	.0214	.0165	.0239	.0124
.175	.0000	.0058	.0061	.0000	.0060	.0218	.0214	.0165	.0212	.0161
.200	.0000	.0058	.0061	.0000	.0060	.0218	.0214	.0165	.0241	.0164
.225	.0000	.0058	.0061	.0000	.0060	.0218	.0214	.0165	.0512	.0557
.250	.0000	.0058	.0061	.0000	.0060	.0218	.0214	.0165	.0082	.0082

PH1 216.0000 222.5000 229.0000

X/LT	.335	.400	.500	.600	.700	.800
.335	.0038	.0300	.0185	.0192	.0182	.0000
.400	.0038	.0300	.0185	.0192	.0182	.0000
.500	.0038	.0300	.0185	.0192	.0182	.0000
.600	.0038	.0300	.0185	.0192	.0182	.0000
.700	.0038	.0300	.0185	.0192	.0182	.0000
.800	.0038	.0300	.0185	.0192	.0182	.0000

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH4B (AEDC VA352)

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AEDC VA352 CH4B T10 EXTERNAL TANK

(ATKT07) (27 APR 74)

REFERENCE DATA

SRFP = .6238 90. FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

ALPHA = .000 RM/L = 3.720
 B. FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 BETA (1) = -2.000 T1 = 97.650 Q1 = 3.953 HREF = .049

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HU/HO

PHI .0000 45.0000 67.5000 90.0000 112.5000 123.0000 135.0000 151.0000 157.0000 161.0000 165.0000 180.0000 196.0000 197.0000 208.0000

X/LT

.000	.8453													
.005	.5521													
.010	.7092													
.040	.2579													
.090	.2055													
.150	.0549													.0430
.200	.0187													
.250	.0082													
.275	.0067													
.300	.0056													
.325	.0038													
.350	.0130													.0163
.375	.0208													
.400	.1309													
.425	.0587													
.450	.0169													
.475	.0184													
.500	.0295													
.525	.0262													
.550	.0232													.0134
.575	.0207													
.600	.0199													
.625	.0182													
.650	.0169													
.675	.0166													
.700	.0167													.0107
.725	.0157													
.750	.0221													
.775	.0215													
.800	.0226													.0473
.825	.0274													
.850														
.875														
.900														
.925														
.950														
.975														

PHI

216.000222.5000229.0000

(ATK107)

AEDC VA352 OH48 T10 EXTERNAL TANK

MACH (1) = 8.000 BETA (1) = -2.000

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE HU/HO

PHI 216.0000222, 9000229, 0000

X/LT

.335	.0097
.400	.0404
.500	.0234
.600	.0183
.700	.0159
.800	.0000

MACH (1) = 8.000 BETA (2) = .000 T1 = 97.690 Q1 = 3.953 HREF = .049

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE HU/HO

PHI .0000 45.0000 67.5000 90.0000112, 9000123, 0000135, 0000151, 0000157, 0000161, 0000165, 0000180, 0000196, 0000208, 0000

X/LT

.000	.8458
.005	.5344
.010	.7353
.040	.2198
.080	.1943
.150	.1174
.200	.0531
.250	.0522
.275	.0199
.300	.0064
.325	.0055
.350	.0043
.375	.0054
.400	.0166
.425	.0424
.450	.2938
.475	.0755
.500	.0211
.525	.0316
.550	.0476
.575	.0427
.600	.0349
.625	.0300
.650	.0276
.675	.0248
.700	.0240
.750	.0227
.800	.0238
.825	.0239
.850	.0212
.875	.0216

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 23

AEDC VA352 CH48 T10 EXTERNAL TANK (ATKT07)

MACH (1) = 8.000 BETA (2) = .000

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE HU/HO

PHI .0000 45.0000 67.5000 90.0000 112.5000 123.0000 135.0000 151.0000 157.0000 161.0000 165.0000 180.0000 196.0000 197.0000 208.0000

X/LT

.900
.925
.935
.937
.960
.975

.0033 .0000 .0198 .0000 .0307 .0279 .0000 .0000 .0160 .0241 .0164
.0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0512 .0557
.0082

PHI 216.0000 222.5000 229.0000

X/LT

.335
.400
.500
.600
.700
.800

.0038 .0300 .0185 .0192 .0000

(ATKT08) (27 APR 74)

AEDC VA352 CH48 T10 EXTERNAL TANK

REFERENCE DATA

SPREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .680
 B.FLAP = .000 ELEVON = .000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 T1 = 92.367 Q1 = .670 HREF = .020

SECTION (1) EXTERNAL TANK DEPENDENT VARIABLE HU/HO

PHI .0000 45.0000 67.5000 90.0000 112.5000 123.0000 135.0000 151.0000 157.0000 163.0000 180.0000 196.0000 197.0000 208.0000

X/LT

.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.005	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.010	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.040	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.080	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.150	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.200	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.250	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.275	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.300	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.325	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.350	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.375	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.400	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.425	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.450	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.475	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.525	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.550	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.575	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.600	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.625	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.650	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.675	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.700	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.750	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.800	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.825	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.850	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.875	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.900	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.925	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.935	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.937	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.960	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.975	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

PHI 216.0000222.5000229.0000

TABULATED DATA LISTING FOR CH4B (AEDC VA352)

(ATK708)

AEDC VA352 CH48 T10 EXTERNAL TANK

$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (2) = -5.000$$

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HU/HO

0.0000 45.0000 67.3000 90.0000 112.5000 123.0000 135.0000 151.0000 157.0000 161.0000 165.0000 180.0000 196.0000 197.0000 208.0000

[illegible]

216,0000222,5093229,0000

X/LT		
.335	.0111	
.400	.0506	.0300
.500	.0164	
.600		.0058
.700	.0086	
.800		.0000

11	=	92.367	01	=	.670	HEF	=	.020
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SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE: HUI/HO

441 .0000 45.0000 67.5000 90.0000112.5000123.0000135.0000151.0000157.0000161.0000165.0000180.0000196.0000197.0000208.0000

[illegible]

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 27

(ATK108)

AEDC VA352 CH48 T10 EXTERNAL TANK

MACH (1) = 8.000 ALPHA (3) = .000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HU/HO

PHI .0000 45.0000 67.5000 90.0000 112.5000 123.0000 135.0000 151.0000 157.0000 161.0000 165.0000 180.0000 196.0000 197.0000 208.0000

X/LT

.600	.0056	.0064	.0000	.0063	.0058	.0051	.0069	.0250	.0036
.625								.0234	
.650				.0000	.0000	.0048	.0069	.0214	
.675								.0206	
.700		.0064	.0051	.0061	.0054	.0055	.0096	.0186	.0064
.750			.0000	.0000	.0000	.0053	.0079	.0186	
.800	.0053	.0054	.0057	.0063	.0051	.0056	.0054	.0195	
.825					.0026				.0048
.850				.0000	.0000	.0046	.0038	.0170	
.875					.0032				
.900		.0047	.0000	.0040	.0000	.0122	.0000	.0115	.0065
.925						.0000			
.935							.0000		
.937									
.960						.0000		.0329	.0371
.975								.0077	

PHI 216.0000 222.5000 229.0000

X/LT

.335	.0047
.400	.0084
.500	.0077
.600	.0077
.700	.0084
.800	.0000

AEDC VA352 CH48 T10 EXTERNAL TANK

(ATKY09) (27 APR 74)

REFERENCE DATA

SREF =	.8238 SQ.FT.	XMRP =	.0000 IN.
LRFP =	22.5803 IN.	YMRP =	.0000 IN.
DRFP =	16.3919 IN.	ZMRP =	.0000 IN.
SCALE =	.0175 SCALE		

ALPHA =	.000	RN/L =	.680
B. FLAP =	.000	ELEVON =	.000
HAW/HT =	.900		

$\text{WACC} / \% =$	9.000	$\text{BETA} / \% =$	-2.000	$\text{TI} =$	92.200	$\text{OI} =$	$.660$	$\text{WREF} =$	$.020$
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SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HU/HO

B-1	.0000	45.0000	67.5000	90.0000	112.5000	123.0000	135.0000	151.0000	157.0000	161.0000	165.0000	180.0000	195.0000	197.0000	208.0000
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[illegible]

216.0000222.5000229.0000

(ATKT09)

MACH (1) = 8.000 BETA (2) = .000

SECTION (1) EXTERNAL TANK

DEPENDENT VARIABLE HU/HO

PHI .0000 45.0000 67.5000 90.0000 112.5000 123.0000 135.0000 151.0000 157.0000 161.0000 165.0000 180.0000 196.0000 197.0000 208.0000

X/LT	.900	.925	.935	.937	.960	.975
	.0047	.0040	.0000	.0101	.0122	.0000
			.0000		.0064	.0115
						.0065
			.0000		.0329	.0371
			.0000		.0077	

PHI 216.0000 222.5000 229.0000

X/LT	.335	.400	.500	.600	.700	.800
	.0047	.0084	.0077	.0084	.0000	
		.0102	.0025			
				.0000		

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 31

AEDC VA352 CH4B 01+T10 CRB. FUSELAGE

(ATK801) (27 APR 74)

REFERENCE DATA

SREF =	.8238 SQ.FT.	YMRP =	.0000 IN.
LREF =	22.5803 IN.	YMRP =	.0000 IN.
BREF =	16.3919 IN.	ZMRP =	.0000 IN.
SCALE =	.0175 SCALE		

PARAMETRIC DATA

BETA	=	.000	RN/L	=	3.720
B.FLAP	=	.000	ELEVON	=	.000
HAW/HT	=	.900			

MACH (1) =	8.000	ALPHA (1) =	-10.000	T1	=	97.600	Q1	=	3.935	HREF	=	.049
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SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HI/HO

[illegible][illegible]

Wavelength, nm	1.200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1760	.1800	.1810	.1820	.0963
Wavelength, nm	1.200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1760	.1800	.1810	.1820	.0963

PHI	.1478	.0716	.1350	.1128	.0901	.0999	.0580
.000							
10.000							
20.000							
25.500							
40.000							
45.500							

.0000

0000

0000

0000-

8058

2951

0982

000

150

X/L
.1830 .1900 .1910 .2000 .2250 .2500 .2750 .3000 .3250 .3500 .3750 .4000 .4250 .4500 .4750

[illegible]

(ATK901)

AEDC VA352 CH48 OI+Y10 CRB. FUSELAGE

MACH (1) = 0.000 ALPHA (1) = -10.000

SECTION (1) CRITTER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .1850 .1900 .1910 .2000 .2250 .2500 .2750 .3000 .3250 .3500 .3750 .4000 .4250 .4500 .4750

PHI

.0538
.0467

.0311

.1493

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PHI

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.0371

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.0275

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.0424

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.0511

X/L

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 33

AEDC VA352 CH48 01+110 ORB. FUSELAGE
(ATK801)

MACH (1) = 8.000 ALPHA (1) = -10.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HI/HO

X/L	.8500	.8750	.9000	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
PHI										
.000	.1084	.0436		.0094	.0063	.0000		.0034	.0000	.0050
21.500		.0121								
39.000						.0089				.0092
52.500				.0000						
55.000				.0000						
65.000				.0000						
68.000				.0000						
100.000				.0000						
108.000				.0000						
112.000				.0000						
113.000				.0000						

.0000

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HI/HO

X/L	.0000	.0030	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
.000	.0000	.4643	.2819	.1242		.0721	.0990	.1173	.1668	.0000		.1794	.3204		.3709
10.000								.0804							.0000
14.000															.1087
20.000								.0595							.0000
22.000															.0000
24.500								.0838							.0304
35.000								.0000							
39.000								.0000							
42.500								.0000							
48.000								.0000							
60.000								.0000							
119.000								.0000							
180.000								.0000							

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1700	.1780	.1800	.1810	.1820
PHI														
.000	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1700	.1780	.1800	.1810	.1820
10.000								.1882		.1191				.0000
20.000														.0704
25.500														
40.000														
45.500														
131.200														
145.400														
146.200														

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(ATK201)

AEDC VA352 CH48 01+110 CRB. FUSELAGE

MACH (1) = 8.000 ALPHA (3) = .000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI	.0613		.0594	.0752	.0800	.0664				.0490	.0370				
10.000					.0000									.0000	
20.000					.0644									.0000	
25.000					.0000									.0000	
40.000					.0397									.0000	
45.000					.0000									.0000	
131.200									.0000						
143.400								.0000						.0000	
146.200														.0000	
156.000														.0000	
159.200														.0000	
170.700									.0000					.0000	
171.900						.0000								.0000	
173.400														.0000	
180.000														.0000	
X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI	.0921	.0982	.1062	.0577	.1395	.8299	.7594								
11.500							.8903							.0000	
12.000														.0000	
21.500														.0000	
23.000														.0000	
24.000				.0163										.0000	
31.500				.0000										.0000	
34.000				.0000										.0000	
35.000				.0000										.0000	
40.000				.0000										.0000	
45.000				.0000										.0000	
51.000				.0000										.0000	
57.500				.0000										.0000	
59.500				.0000										.0000	
61.000				.0000										.0000	
63.000				.0000										.0000	
70.000				.0000										.0000	
96.500				.0000										.0000	
105.000				.0000										.0000	
106.000				.0000										.0000	
135.000				.0000										.0000	
140.000				.0000										.0000	
141.400				.0000										.0000	
151.000				.0000										.0000	
180.000				.0000										.0000	
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8290

(ATK901)

AEDC VA352 CH4B Q1+T10 CRB. FUSELAGE

WACH (1) = 8.000 ALPHA (4) = 5.000

SECTION (1) ORBITER FUSELAGE

[illegible]

(ATK802) (27 APR 74)

AEDC VA352 CH4B 01+110 ORB. FUSELAGE

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5503 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

WACH (1) = 8.000 BETA (1) = -2.000 TI = 97.350 QI = 3.942 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HI/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
PHI	.0000	.3959	.2441	.1054	.0705	.0353	.0515	.0825	.0000	.1490	.2184	.6249	.0000	.0000
10.000							.0400							
14.000							.0452							
20.000							.0864							.0987
22.000							.0000							.0000
24.500							.0000							.0282
35.000							.1340							.0000
39.000							.1969							.0794
42.500							.3687							.0000
48.000														.0000
60.000														.0000
119.000														.0000
180.000														.0000

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI	.0509	.0512	.0674	.0586	.0000	.0314	.0429	.0295							
10.000															
10.000															
20.000															
25.500															
40.000															
45.500															
131.200															
145.400															
146.200															
156.000															
159.200															
170.700															
171.900															
173.400															
180.000															

X/L	.1850	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI	.0435	.0658	.1469	.0000	.7570	.9849	.7302								
.0000															
11.500															

PHI	.0000	.0945	.0768	.0816	.0633	.0481	.0408	.0272	.0257	.0248	.0321	.0358	.0335
11.500													

PARAMETRIC DATA

ALPHA = .000 RN/L = 3.720
 B-FLAP = .000 ELEVON = .000
 HAW/HT = .900

TABULATED DATA LISTING FOR CH4B (AEDC VA332)

(ATK802)

AEDC VA352 CH48 CH+T10 CRB. FUSELAGE

$\text{MACH} (1) = 9.000$ $\text{BETA} (1) = -2.000$

SECTION (1) ORBITER FUSELAGE

Y/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0150	1.0140	1.0250	1.0350	1.0500
PHI												
21.500	.0879	.0295	.0161	.0133	.0103	.0071	.0050	.0000	.0034	.0000	.0033	
39.000			.0079				.0068				.0061	
52.500			.0000			.0000						
55.000			.0000									
65.000			.0000			.0000						
100.000			.0000			.0000						
108.000			.0000			.0000						
112.000						.0000	.0000					
113.000									.0000			

WACH (1) =	A 000	BETA (2) =	.000	TI =	97.350	QI =	3.942	HREF =	.049
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SECTION () TRITTER FISE AGE

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
.000	.0000	.4034	.2312	.1101		.0720	.0395	.0414	.0678	.0000			.1050	.1983	.6092
10.000															.0000
14.000								.0375							.1048
20.000								.0403							.0000
22.000															.0000
24.500								.0743							.0292
35.000															
39.000								.0000							
42.500												.0000			
48.000								.0000							
60.000															.0000
119.000															.0743
180.000			.3741		.2049		.1362						.0944		.0743

[illegible]

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH4B (AEDC VA352)

PAGE 43

AEDC VA352 CH4B 01+T10 CRB. FUSELAGE

(ATK802)

MACH (1) = 8.000 BETA (2) = .000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HI/HO

[illegible]

(ATK802)

AEDC VA352 CH4B 01+110 CRB. FUSELAGE

MACH (1) = 8.000 BETA (2) = .000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0000				.0000				.0000				.0000		.0000
111.000					.0000										
112.000					.0000										
113.000					.0000						.0000				
116.000					.0000				.0000						
135.000	.0000				.0000				.0000						
149.000					.0145				.0000						
160.000	.0000								.0000						
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.0000	.0832	.0310	.0172	.0144	.0093	.0065	.0044	.0000		.0029	.0000	.0022			
21.500			.0134										.0054		
39.000						.0000									
52.500			.0000			.0000									
55.000			.0000			.0000									
65.000			.0000			.0000									
68.000			.0000			.0000									
100.000			.0000			.0000									
108.000			.0000			.0000									
112.000						.0000	.0000								
113.000								.0000							

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 45

AEDC VA352 CH48 01+110 CR8. FUSELAGE

(ATK803) (27 APR 74)

REFERENCE DATA

SREF = .9238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .680
 B.FLAP = .000 ELEVON = .000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI	.0000	.0000	.5256	.3134	.1219	.0871	.0553	.0549	.1092	.0000		.1697	.2986	.5423	.0000
10.000								.0483						.0799	.0000
14.000								.0571						.0000	.0402
20.000								.0968							
22.000								.0000							
24.500								.0000							
35.000								.0000							
39.000								.0000							
42.500								.0000							
48.000								.0000							
60.000								.0000							
119.000								.0000							
180.000								.0000							
X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI	.0992	.0710	.1032	.0879	.0000	.0620					.0671	.0816			
10.000				.3480		.1206			.0953						.0000
20.000				.0000											.0934
25.500				.0949											
40.000				.0000											
45.500				.0279											
131.200				.0000					.0000						
145.400															
148.200									.0000						.0000
156.000															.0000
159.200															
170.700															
171.900															
175.400															
180.000															
X/L	.1850	.1900	.1910	.2000	.2250	.2900	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI	.0857			.1109	.4609	.3377	.3128								
10.000															
11.500															
PHI	.0746			.0641	.0407	.0391	.0409	.0350	.0364	.0296	.0320	.0304	.0292	.0266	.0296

(ATTR003)

AEDC VA352 CH4B 01+T10 ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (1) = -10.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
12.000								.0376				.0346			
21.500								.0338							
23.000				.1143											
24.000				.0000											
31.500								.0000							
34.000				.0000											
35.000				.0000				.0000							
40.000				.0000				.0000							
45.000				.0000				.0000							
51.000				.0000				.0000				.0320			
57.500								.0000							
59.500								.0000							
61.000								.0000							
65.000								.0000							
70.000				.0000											
96.500				.0000								.0509			
105.000								.0281				.0000			
106.000								.0000							
135.000				.0000											
140.000															
141.400	.0000		.0000									.0136			
151.000															
160.000															
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.000	.0256	.0266	.0268	.0257	.0248	.0237	.0246	.0235	.0201	.0220	.0357	.0358	.0222	.0214	
21.500	.0255			.0150					.0144				.0165		
63.000	.0000								.0000				.0000		
64.000									.0000				.0000		
65.000					.0000								.0000		
65.500					.0000				.0000				.0000		
105.000	.0000								.0000				.0000		
111.000					.0000										
112.000					.0000										
113.000					.0000										
116.000					.0000						.0000				
135.000	.0000				.0000				.0000						
149.000					.0190				.0000						
160.000	.0000								.0000				.0000		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			

PHI

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 47

(ATK803)

$$\text{WACH} (1) = 8.000 \quad \text{ALPHA} (1) = -10.000$$

AEDC VA352 CH48 01+T10 CRB. FUSELAGE

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HI/HO

x/L	.6500	.6750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
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.000	.0336	.0225	.0136	.0116	.0077	.0049	.0030	.0000	.0035	.0037
21,500			.0183							
39,000										
52,500							.0042			.0051

112.000	
113.000	
	.0000
	.0000

MACH (1) =	8.000	ALPHA (2) =	-5.000	TI	=	93.425	QI	=	.682	HREF	=	.020
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SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HI/HO

[illegible]

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[illegible]

7/8

.1200	.1300	.1400	.1500	.1600	.1670	.1700	.1780	.1800	.1810	.1820
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III

Variable	Mean	Standard deviation	Skewness	Kurtosis
Age	37.00	10.00	-.0376	.0417
Gender	1.00	.000	.0376	.0417
Marital status	1.00	.000	.0376	.0417
Education	10.00	.000	.0376	.0417
Income	10.00	.000	.0376	.0417
Occupation	10.00	.000	.0376	.0417
Health	10.00	.000	.0376	.0417
Stress	10.00	.000	.0376	.0417
Depression	10.00	.000	.0376	.0417
Life satisfaction	10.00	.000	.0376	.0417
Overall	10.00	.000	.0376	.0417

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(ATK903)

AEDC VA352 CH4B 01+T10 CRB. FUSELAGE

$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (2) = -5.000$$

SECTION (1) CRYSTAL FUSELAGE

[illegible]

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH4B (AEDC VA392)

PAGE 49

(ATK803)

MACH (1) = 8.000 ALPHA (2) = -5.000

AEDC VA392 CH4B 01+110 ORB. FUSELAGE

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HI/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0000				.0000			.0000					.0000		
111.000					.0000			.0000					.0000		
112.000					.0000			.0000					.0000		
113.000					.0000			.0000					.0000		
116.000					.0000			.0000					.0000		
135.000	.0000				.0000			.0000					.0000		
149.000					.0000			.0000					.0000		
180.000	.0000			.0274				.0000					.0000		

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
PHI												
.000	.0343	.0210	.0119	.0085	.0056	.0041	.0029	.0000		.0020	.0000	.0021
21.500			.0139				.0028					.0041
39.000							.0000					
55.000			.0000				.0000					
65.000			.0000				.0000					
68.000			.0000				.0000					
100.000			.0000				.0000					
108.000			.0000				.0000					
112.000			.0000				.0000					
113.000							.0000		.0000			

MACH (1) = 8.000 ALPHA (3) = .000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HI/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
.000	.0000	.4078	.2538	.1085	.0794	.0664	.0734	.0624	.0000				.0533	.1197	.3399
10.000							.0703						.0000		.0000
14.000							.0655						.0635		.0000
20.000							.0790						.0000		.0348
22.000							.0000						.0000		
24.500							.0000						.0000		
35.000							.0000						.0000		
39.000							.0000						.0000		
42.500							.0000						.0000		
48.000							.0000						.0000		
60.000							.0000						.0000		
119.000			.3715	.2044			.1335			.0937			.0000		.0810
180.000	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820

ABSTRACTED DATA LISTING FOR CH48 (AEDC VA352)

(ATK803)

AEDC VA352 CH4B 01+T10 CR9. FUSELAGE

MACH (1) = 8.000 ALPHA (3) = .000

SECTION / MICROITER FUSELAGE

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PRI															
.000	.0273	.0233	.0243	.0242	.0221					.0196		.0242			
10.000				.0000											
20.000				.0533											
25.500				.0000											
40.000				.0201											
45.500				.0000											
131.200									.0000					.0000	
145.400									.0000					.0000	
156.000														.0000	
159.200														.0000	
170.700												.0000			.0000
171.900						.0000									
173.400					.0709	.3196				.4493		.3510			
180.000		.0606			.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PRI															
.000	.0369		.0431	.0328	.0522	.0373	.0233	.0218	.0146	.0180	.0210	.0222	.0227	.0211	
11.500			.0211					.0574				.0322			
12.000															
21.500								.0336							
23.000															
24.000				.0118											
31.500				.0000											
34.000															
35.000				.0000											
40.000				.0000											
45.000															
51.000				.0000											
57.500												.0122			
59.500															
61.000															
65.000															
70.000															
96.500				.0000											
105.000															
106.000															
135.000															
140.000				.0000											
141.400	.0000														
151.000															
180.000			.0000	.0731	.0000	.0055						.0037			
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH49 (AEDC VA352)

PAGE 51

AEDC YA352 CH4B 01+T10 GRB. FUSELAGE (ATK803)

WACH (1) = 0.000 ALPHA (3) = .000

SECTION (CONTAINER FUSELAGE)

DEPENDENT VARIABLE HI/HO

[illegible]

72

FILE

[illegible]

MACH (1) = 8.000 ALPHA (4) = 5.000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HI/HO

[illegible]

(ATK803)

AEDC VA352 CH48 01+110 ORB., FUSELAGE

MACH (1) = 8.000 ALPHA (4) = 5.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
42.500								.0000				.0000			
48.000								.0000							.0000
60.000															.0602
119.000		.2951			.1544			.0956			.0645				
180.000															
X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI															
.000	.0280	.0212	.0206	.0196	.0196	.0227					.0264		.0304		
10.000				.0000	.0000										
20.000				.0106	.0106										
25.500				.0000	.0000										
40.000				.0424	.0000										
45.500															
131.200									.0000					.0000	
145.400								.0000							
146.200															
156.000															
159.200															
170.700										.0000					.0000
171.900															
175.400		.0311			.0353	.1598					.2726		.2851		
180.000															
X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
.000	.0321	.0369	.0271	.0288	.0230	.0180	.0192	.0153	.0164	.0156	.0154	.0141	.0136		
11.500		.0357													
12.000						.0340						.0217			
21.500															
23.000															
24.000		.0173													
31.500		.0000													
34.000															
35.000		.0000													
40.000		.0000													
45.000															
51.000		.0000													
57.500															
59.500															
61.000															
65.000															
70.000															

.0065

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 53

(ATK803)

AEDC VA352 CH48 CH+T10 CRB. FUSELAGE

MACH (1) = 8.000 ALPHA (4) = 5.000

SECTION (1) ORBITTER FUSELAGE

DEPENDENT VARIABLE HI/HO

X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI				.0000											
96.500															
103.000															
106.000								.0131				.0093			
135.000								.0000				.0000			
140.000															
141.400	.0000														
151.000			.0000												
180.000				.0688		.0000		.0073				.0068			
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.000	.0124	.0127	.0116	.0124	.0111	.0114	.0109	.0104	.0094	.0101	.0143	.0194	.0274	.0297	
21.500	.0213				.0151				.0152				.0321		
63.000	.0000														
64.000															
65.000															
65.500					.0000								.0000		
105.000	.0000				.0000				.0000				.0000		
111.000															
112.000					.0000										
113.000					.0000										
116.000															
135.000	.0000				.0000				.0000		.0000				
149.000					.0000										
180.000	.0000				.0062				.0000		.0000		.0000		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.0163	.0091	.0056	.0040	.0021	.0021	.0027	.0000		.0034	.0000	.0042			
21.500			.0057												
39.000															
52.500						.0000	.0056					.0044			
55.000															
65.000			.0000												
68.000			.0000												
100.000			.0000												
108.000			.0000												
112.000					.0000										
113.000					.0000				.0000						

(ATK804) (27 APR 74)

AEDC VA352 CH4B 01+T10 ORB. FUSELAGE

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 OREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 BETA (1) = -2.000 TI = 93.550 QI = .681 HREF = .020

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI	.0000	.4023	.2472	.1090		.0775	.0695	.0684	.0541	.0000		.0770	.1316	.3019	.0000
10.000								.0698						.0617	
14.000								.0661						.0000	
20.000								.0859						.0446	
22.000								.0000							
24.500								.0000							
35.000								.1304		.0945				.0000	.0773
39.000															
42.500															
48.000															
60.000															
119.000															
180.000															
X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1700	.1780	.1800	.1810	.1820	
PHI	.0236		.0240	.0297	.0272	.0213				.0178	.0242				
10.000					.0000										
20.000					.0683										
25.500					.0000										
40.000					.0170										
45.500					.0000										
131.200									.0000				.0000		
145.400									.0000				.0000		.0000
146.200															
156.000															
159.200															
170.700															
171.900															
173.400															
180.000															
X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI		.0660			.0692	.0000	.3176			.3908	.3970				
.000															
11.500															
		.0365		.0411	.0518	.0609	.0473	.0394	.0401	.0297	.0318	.0315	.0303	.0281	.0259
					.0125										

(ATKBD4)

AEDC VA352 CH4B C1+T10 CRB. FUSELAGE

$$\text{MACH} (1) = 6.000 \quad \text{BETA} (1) = -2.000$$

SECTION (1) CRIB:TER FUSELAGE

DEPENDENT VARIABLE HI/HO

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0360	1.0500
441												
21.000	.0772	.0293	.0193	.0122	.0072	.0032	.0035	.0000	.0027	.0000		.0029
39.000			.0100				.0068					.0048
52.500			.0000			.0000						
55.000			.0000									
65.000			.0000			.0000						
68.000			.0000			.0000						
100.000			.0000			.0000						
106.000			.0000			.0000	.0000					
112.000												
113.000									.0000			

MACH (1) =	8.000	BETA (2) =	.000	TI	=	93.550	QI	=	.681	HREF	=	.020
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SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HI/HO

[illegible]

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PMI	.0273		.0233	.0245	.0242		.0221			.0196			.0242		
10.000					.0000										
20.000					.0353										
25.500					.0000										
40.000					.0201										
45.500					.0000				.0000					.0000	
131.200								.0000							
145.400															
145.200								.0000							

(ATK804)

AEDC VA352 CH4B 01+110 ORB. FUSELAGE

MACH (1) = 8.000 BETA (2) = .000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L	.9000	.9250	.9500	.9750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0000				.0000				.0000				.0000		.0000
111.000															
112.000					.0000										
113.000					.0000										
116.000					.0000				.0000		.0000				
135.000	.0000				.0000				.0000		.0000				
149.000															
180.000	.0000				.0036				.0000				.0000		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0360	1.0500			
PHI															
.000	.0283	.0156	.0099	.0071	.0045	.0035	.0020	.0000		.0028	.0000	.0038			
21.500			.0097				.0040					.0036			
39.000															
52.500															
55.000			.0000			.0000									
65.000			.0000			.0000									
68.000			.0000			.0000									
100.000			.0000			.0000									
108.000			.0000			.0000	.0000								
112.000															
113.000									.0000						

AEDC VA352 CH48 01+T10 CRB. FUSELAGE

(ATK805) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RM/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 TI = 98.067 QI = 4.007 HREF = .049

SECTION (1) CRB/ITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0780	.0800	.0900	.1000
PHI	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
10.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
14.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
20.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
22.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
24.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
35.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
39.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
42.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
48.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
60.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
119.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
180.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
10.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
20.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
25.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
40.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
45.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
131.200	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
145.400	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
146.200	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
156.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
159.200	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
170.700	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
171.900	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
173.400	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
180.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
11.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

.6060

.7556

.5296

.3596

.4094

.8299

.8847

.9527

.0000

.4750

X/L

PHI

.000

11.500

(ATK805)

AEDC VA352 CH48 01+T10 CRB. FUSELAGE

MACH (1) = 8.000 ALPHA (1) = -10.000

SECTION (1) CRBITTER FUSELAGE DEPENDENT VARIABLE M1/H0

X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
-----	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

PHI

12.000

21.500

23.000

24.000

31.500

34.000

35.000

40.000

45.000

51.000

57.500

59.500

61.000

65.000

70.000

96.500

105.000

106.000

135.000

140.000

141.400

151.000

180.000

X/L

.5000

.9250

.9500

.5750

.6000

.6250

.6500

.6750

.7000

.7250

.7500

.7750

.8000

.8250

.8290

PHI

.0000

21.500

63.000

64.000

65.000

65.500

105.000

111.000

112.000

113.000

116.000

135.000

149.000

180.000

X/L

.8500

.8750

.9000

.9250

.9500

.9750

1.0000

1.0130

1.0140

1.0250

1.0360

1.0500

PHI

.0000

.0000

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.0000

AEDC VA352 CH48 01+110 CRB. FUSELAGE
(ATK805)

MACH (1) = 8.000 ALPHA (1) = -10.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0360	1.0500
PHI												
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
21.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
39.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
55.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
65.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
68.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
100.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
108.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
112.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
113.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 98.067 QI = 4.007 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
10.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
14.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
20.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
22.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
24.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
35.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
39.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
42.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
48.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
60.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
119.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
180.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1760	.1800	.1810	.1920
PHI															
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
10.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
20.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
25.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
40.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
45.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
131.200	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
145.400	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
146.200	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

.5653

.4982

.5366

(ATK805)

AEDC VA352 CH4B 01+110 ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (3) = .000

SECTION (1) ORBITTER FUSELAGE DEPENDENT VARIABLE HT/HO

X/L	.1200	.1250	.1300	.1400	.1500	.1550	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
10.000															
20.000															
25.500															
40.000															
45.500															
131.200									.6820					.5117	
145.400								.4690						.3747	.2929
146.200															
156.000										.8831		.8846			
159.200											.0000		.0000		
170.700						.4758	.0000	.0000	.0000	.0000	.0000	.0000	.4250	.4500	.4750
171.900									.3000	.3250	.3750	.4000			
173.400		.0000	.0000	.0000	.0000	.2250	.2750	.3000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
180.000	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
X/L															
PHI	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
11.500								.0000							
12.000									.0000						
21.500								.0000				.0000			
23.000				.0000											
24.000				.0000											
31.500				.0000					.0000						
34.000				.0000					.0000						
35.000				.0000				.0000	.0000						
40.000				.0000				.0000	.0000						
45.000				.0000				.0000	.0000						
51.000				.0000				.0000	.0000						
57.500												.0000			
59.500								.0000							
61.000								.0000							
65.000								.0000							
70.000								.0000							
96.500				.0000									.0000		
105.000								.0000							
106.000								.0000							
135.000													.0000		
140.000				.2121											
141.400	.4342		.4569	.0000	.0000	.0000	.0000								
151.000									.7750	.7250	.7500	.7750	.8000	.8250	.8290
160.000															
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.7750	.7000	.7250	.7500	.7750	.8000	.8250	.8290

(ATKBD5)

AEDC VA352 CH4B 01+T10 CRB. FUSELAGE

MACH (1) = 6.000 ALPHA (3) = .000

SECTION (1) CRIBITER FUSELAGE

DEPENDENT VARIABLE H1/H0

[illegible]

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH4B (AEDC VA352)

PAGE 67

AEDC VA352 CH4B 01 ORB. FUSELAGE

(ATK810)

MACH (1) = 8.000 ALPHA (1) = -5.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE MU/HO

X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
12.000								.0045							
21.500								.0052				.0049			
23.000															
24.000				.0079											
31.500			.0086												
34.000				.0095				.0047							
35.000				.0140				.0059							
40.000								.0086							
45.000				.0244											
51.000								.0070							
57.500															
59.500								.0082				.0375			
61.000								.0068							
65.000								.0087							
70.000															
96.500				.0217											
105.000								.0196				.0146			
106.000								.0259				.0071			
135.000				.1955											
140.000															
141.400															
151.000	.5044														
180.000			.4285	.0846	.0093			.0050				.0256			
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.000	.0137	.0142	.0140	.0140	.0146	.0148	.0137	.0128	.0118	.0111	.0104	.0096	.0098	.0096	
21.500	.0072				.0099			.0171					.0259		
63.000	.0177														
64.000															
65.000								.0303							
65.500					.0467								.0210		
105.000	.0105				.0141				.0320				.0331		
111.000															
112.000					.0094										
113.000					.0113										
116.000															
135.000	.0242				.0332			.0381			.0364				
149.000											.0388				
180.000	.0519				.0479			.0405							
X/L	.8500	.8750	.9000	.9250	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500					
PHI															
												.0494			

(ATKBI0)

AEDC VA352 CH4B 01 CRB. FUSELAGE

MACH (1) = 8.000 ALPHA (1) = -5.000

SECTION (1) ORBITER FUSELAGE

Yr	.8500	.8750	.9000	.9750	1.0000	1.0150	1.0140	1.0250	1.0380	1.0500
PHI										
.0000	.0094	.0086	.0197	.0046	.0059	.0050		.0061	.0000	.0062
21.5000										
39.0000										
52.5000			.0322	.0719						
53.0000			.0367		.0041					.0046
65.0000				.0385						
66.0000										
100.0000			.0418							
108.0000			.0461	.0338						
112.0000					.0097					
113.0000							.0090			

$\text{Al}(\text{OH})_3$	9.000	$\text{Al}(\text{OH})_3 / 2 = .000$	$\text{TI} = 96.800$	$\text{QI} = 3.961$	$\text{HREF} = .049$
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SECTION (1) CRITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
P-1															
.000	.0000	.4521	.3005	.1385		.0937	.0687	.0518	.0385	.0000			.0279	.0240	.0209
10.000															.0263
14.000								.0733							.0316
20.000								.0764							.0441
22.000															
24.500								.0840							
35.000															.0500
39.000															
42.500								.0806				.0540			
48.000															
60.000								.1297							
119.000											.0888				.0947
180.000		.8515		.2013				.1270							.0731

X/L	.1200	.1290	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
FBI			.0151	.0132	.0115		.0107				.0101		.0093		
	.0170				.0191										
10.000			20.000		.0202										
25.500					.0248										
40.000					.0311										
45.500					.0309										
131.200									.3996						
145.400														.3869	
146.200								.6472							

.3869

2172.

AEDC VA352 CH4B 01 CRB. FUSELAGE

(ATK811) (27 APR 74)

REFERENCE DATA

SREF =	.6238 SO.FT.	YMRP =	.0000 IN.
LREF =	22.5803 IN.	YMRP =	.0000 IN.
BREF =	16.3919 IN.	ZMRP =	.0000 IN.
SCALE =	.0175 SCALE		

PARAMETRIC DATA

BETA	=	.000	RN/L	=	.680
B.FLAP	=	.000	ELEVON	=	.000
HAWAHT	=	.900			

MACH (1) =	8.000	ALPHA (1) =	-5.000	TI	=	93.000	QI	=	.677	HREF	=	.020
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SECTION (1) ORBITER FUSELAGE

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
10.000	.0000	.4190	.2673	.1153		.0765	.0564	.0416	.0306	.0000			.0224	.0196	.0162
14.000								.0561							.0205
20.000															.0231
22.000								.0591							.0318
24.500								.0791							.0420
35.000															
39.000								.0649				.0588			
42.500								.1542							
48.000															
60.000								.1616			.1167				.1160
119.000			.4992		.2426		.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
180.000	.1200	.1250	.1300	.1400	.1500	.1560									
X/L															
PHI															
10.000	.0141		.0155	.0114	.0101		.0100				.0090		.0081		
10.000					.0137										
20.000					.0139										
25.500					.0159										
40.000					.0217										
45.500					.0258				.1532						
131.200															
145.400															
146.200								.1978						.2497	
156.000															
159.200															
170.700															
171.900															
173.400															
180.000		.0831			.0965	.2644	.3569			.4446		.0207		.2415	.4056
X/L															
PHI															
10.000											.3850		.3483		
11.500	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
X/L															
PHI															
10.000															
11.500	.0079	.0079	.0066	.0066	.0000	.0047	.0053	.0046	.0050	.0056	.0059	.0062	.0067	.0070	.0073

(ATK911)

AEDC VA332 CH4B 01 CRB. FUSELAGE

MACH (1) = 8.000 ALPHA (1) = -5.000

SECTION (1) CRIBTER FUSELAGE DEPENDENT VARIABLE HU/H0

X/L	.1830	.1900	.1980	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
12.000								.0052				.0044			
21.500								.0066							
23.000															
24.000				.0106											
31.500				.0111											
34.000								.0067							
35.500				.0117				.0090							
40.000				.0162				.0101							
45.000															
51.000				.0250				.0082				.0159			
57.500								.0076							
59.500								.0079							
61.000								.0086							
65.000															
70.000															
96.500				.0192								.0165			
105.000								.0206				.0126			
106.000								.0288							
135.000				.1245											
140.000															
141.400	.1990		.3146									.0121			
151.000				.0649		.0075		.0056							
160.000															
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.0000	.0079	.0082	.0092	.0095	.0111	.0110	.0116	.0115	.0123	.0123	.0130	.0130	.0143	.0150	
21.500	.0041				.0045				.0061				.0064		
63.000	.0080														
64.000									.0199				.0327		
65.000					.0150										
65.500					.0038				.0039				.0039		.0087
105.000	.0089														
111.000					.0046										
112.000					.0051										
113.000															
116.000					.0207				.0310		.0063				
135.000	.0103				.0181				.0241						
149.000	.0168								.0162				.0172		
180.000															
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0360	1.0500			

PHI

AE DC VA352 CH48 01 CRB. FUSELAGE (ATK811)

$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (1) = -5.000$$

SECTION (1) 01 BITER FUSELAGE

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
PHI												
.000	.0147	.0143	.0139	.0145	.0127	.0027	.0115	.0000		.0113	.0000	.0109
21.500			.0065									
39.000												
52.500												
55.000			.0571			.0156	.0022					.0027
63.000			.0249									
68.000												
100.000			.0322			.0211						
108.000			.0197									
112.000						.0148						
113.000							.0044					.0053

MACH (1) =	8.000	ALPHA (2) =	.000	TI	=	93.000	QI	=	.677	HREF	=	.020
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SECTION (1) ORBITER FUSELAGE

[illegible]

TABULATED DATA LISTING FOR CH48 (AEDC VA392)

(ATK812) (27 APR 74)

AEDC VA392 CH48 O1 CR8. FUSELAGE

REFERENCE DATA

SREF = .9238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 15.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

WACH (1) = 8.000 ALPHA (1) = 25.000 TI = 93.400 OI = .524 WREF = .018

SECTION (1) CR8 FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .0000 .0050 .0100 .0200 .0250 .0300 .0400 .0500 .0600 .0700 .0750 .0760 .0800 .0900 .1000

PHI .0000 .0000 .0116 .5007 .3146 .2529 .2127 .1792 .1449 .0000 .1236 .1141 .1044 .1180 .1255
 10.000
 14.000 .2123
 20.000 .2055
 22.000
 24.500 .1049
 35.000
 39.000 .0817
 42.500 .0449
 48.000
 60.000
 119.000 .0279
 180.000 .0155

X/L .1200 .1250 .1300 .1400 .1500 .1560 .1600 .1620 .1670 .1690 .1700 .1780 .1810 .1820

PHI .0000 .0991 .0940 .0889 .0790 .0771 .0750 .0757
 10.000 .1045
 20.000 .0902
 25.000 .1108
 40.000 .0844
 45.000 .0607
 131.200 .0075
 145.400 .0077
 146.200
 156.000
 159.200
 170.700 .0117
 171.900 .0064
 173.400 .0083
 180.000 .0117 .0148 .0175 .1418 .0321

X/L .1830 .1900 .1910 .2000 .2250 .2500 .2750 .3000 .3250 .3500 .3750 .4000 .4250 .4500 .4750

PHI .0000 .0759 .0683 .0000 .0596 .0643 .0563 .0651 .0621 .0591 .0568 .0542 .0523
 11.500 .0752

PARAMETRIC DATA

BETA = .000 RM/L = .900
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900



TABULATED DATA LISTING FOR CH48 (AEDC VA352)

(ATK812)

AEDC VA352 CH48 01 CFB, FUSELAGE

MACH (1) = 8.000 ALPHA (1) = 25.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
PHI												
.000	.0305	.0306	.0265	.0254	.0206	.0260	.0174	.0000	.0175	.0000	.0164	
21.500			.0295				.0312				.0260	
39.000						.0038						
52.500			.0011									
55.000			.0013									
65.000						.0014						
68.000			.0018									
108.000			.0037			.0031						
112.000						.0023						
113.000							.0028					

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 93.400 QI = .524 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0780	.0800	.0900	.1000
PHI															
.000	.0000	.6232	.5236	.3452		.2816	.2403	.2059	.1721	.0000		.1458	.1376	.1283	.1283
10.000														.1413	
14.000								.2451						.1459	
20.000								.2289						.1572	
22.000															
24.500								.1041						.0788	
35.000															
39.000								.0780							
42.500								.0352				.0533			
49.000														.0133	
60.000								.0203		.0125				.0090	
119.000			.0413		.0461										
140.000															

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI															
.000	.1215	.1139	.1070	.0990	.0993						.0933		.0935		
10.000				.1239											
20.000				.1140											
25.500				.1280											
40.000				.0897											
45.500				.0613											
131.200							.0058								
145.400															.0075
146.200							.0056								

(ATKB12)

AEDC VA352 CH48 01 CRB. FUSELAGE

$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (2) = 30.000$$

SECTION (1) ORBITER FUSELAGE	DEPENDENT VARIABLE HU/HQ
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
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27	27
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29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
55	55
56	56
57	57
58	58
59	59
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62	62
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67	67
68	68
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72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

[illegible]

(ATK812)

AEDC VA352 CH48 01 ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 30.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.3000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0324			.0109					.0053				.0012		.0020
111.000				.0157											
112.000				.0181											
113.000											.0060				
116.000				.0046					.0034		.0030				
135.000	.0030								.0053				.0053		
149.000	.0048			.0057											
180.000															

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
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PHI												
.000	.0406	.0376	.0350	.0337	.0293	.0326	.0238	.0000	.0223	.0000	.0223	
21.500			.0370									.0326
39.000						.0040						
92.500												
95.000			.0011									
65.000			.0004			.0021						
68.000												
100.000			.0004									
108.000			.0015			.0003						
112.000					.0012							
113.000							.0032					

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 93.400 QI = .524 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
.000	.0000	.6157	.5376	.3695	.3130	.2663	.2349	.1974	.0000	.1694	.1608	.1461	.1674	.1655	.1739
10.000							.2711								.0778
14.000							.2497								.0338
20.000							.1033								.0133
22.000							.0747								.0083
24.500							.0280								.0180
35.000							.0162								.1810
39.000							.0345								.1820
42.500							.0494								
48.000															
60.000															
119.000															
180.000															

X/L

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TABULATED DATA LISTING FOR CH4B (AEDC VA352)

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AEDC VA352 CH4B 01 CRB, FUSELAGE (ATRB12)

MACH (1) = 8.000 ALPHA (3) = 35.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI															
.000	.1432	.1371	.1277	.1198		.1211					.1157		.1142		
10.000				.1463											
20.000				.1361											
25.000				.1467											
40.000				.0983											
45.000				.0609											
131.200									.0043						
145.400															
146.200								.0050						.0063	
156.000														.0085	
159.200															.0136
170.700															
171.900										.0162		.0026			
173.400					.0117	.0223	.0344			.0887		.0445			
180.000		.0083	.1900	.1910	.2000	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
X/L	.1830														
PHI															
.000	.1118			.1045	.0000	.0974	.0978	.0875	.1023	.0962	.0912	.0890	.0877	.0824	.0806
11.500				.1124											
12.000								.0975							
21.500								.1086				.0918			
23.000				.1276											
24.000				.1411											
31.500															
34.000				.1383											
35.000				.1260											
40.000															
45.000				.0462											
51.000								.0099							
57.500								.0196				.0023			
59.500								.0212							
61.000								.0225							
65.000															
70.000															
96.500				.0218											
105.000															
106.000								.0162				.0178			
135.000								.0021					.0015		
140.000				.0039											
141.400															
151.000	.0045	.0102													
180.000						.0035		.0023							
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500

(ATK812)

AEDC VA352 CH4B Q1 CRB. FUSELAGE

MACH (1) = 8.000 ALPHA (3) = 35.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .9000 .9250 .9500 .9750 .9800 .9850 .9900 .9950 .9990 .8290

PHI

.0000 .0776 .0766 .0749 .0774 .0753 .0750 .0729 .0720 .0660 .0662 .0622 .0383 .0527
.0831 .0689 .0710 .0006 .0003 .0005 .0006

21.500

63.000

64.000

65.000

65.500

105.000

111.000

112.000

113.000

116.000

135.000

149.000

180.000

X/L

.8500 .8750 .9000 .9250 .9500 .9750 1.0000 1.0130 1.0140 1.0250 1.0380 1.0500

PHI

.0310 .0490 .0449 .0431 .0369 .0401 .0314 .0000 .0294 .0000 .0290 .0401
.0475 .0014 .0011 .0010 .0034 .0047 .0066

21.500

39.000

52.500

55.000

65.000

68.000

100.000

108.000

112.000

113.000

AEDC VA352 CH4B 01 ORB. FUSELAGE

(ATK813) (27 APR 74)

REFERENCE DATA

SREF =	.8238 SQ.FT.	YMRP =	.0000 IN.
LREF =	22.5803 IN.	YMRP =	.0000 IN.
DREF =	16.3919 IN.	ZMRP =	.0000 IN.
SCALE =	.0175 SCALE		

PARAMETRIC DATA

BETA	=	.000	RN/L	=	1.000
B.FLAP	=	.000	ELEVON	=	.000
HAW/HT	=	.900			

MACH (1) =	0.000	ALPHA (1) =	30.000	TI	=	94.100	Q1	=	1.003	HREF	=	.025
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SECTION (1) ORBITER FUSELAGE

[illegible]

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH4S (AEDC VA352)

PAGE 85

AEDC VA352 CH4S 01 ORB. FUSELAGE (ATK813)

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
PHI												
.000	.0389	.0366	.0343	.0319	.0280	.0326	.0222	.0000		.0235	.0000	.0222
21.500			.0359									
39.000						.0398						.0326
52.500						.0046						
55.000			.0009									
65.000			.0008									
68.000						.0030						
100.000			.0008									
108.000			.0014			.0011						
112.000						.0010						
113.000									.0021			

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.100 QI = 1.003 HREF = .025

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
PHI														
.000	.0000	.6110	.5267	.3635		.3023	.2622	.2284	.1930	.0000		.1641	.1582	.1425
10.000														.1612
14.000								.2659						.1616
20.000								.2466						.1722
22.000								.1009						.0755
24.500								.0709						
35.000								.0272						
39.000								.0140						
42.500											.0496			
48.000											.0082			.0113
60.000														.0091
119.000			.0676		.0330									
180.000														
X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1810	.1820
PHI														
.000	.1695	.1316	.1228	.1151			.1157							
10.000				.1470										
20.000				.1288										
25.500				.1420										
40.000				.0970										
45.500				.0605										
131.200														
145.400									.0049					
146.200									.0074					.0076

(ATRB13)

AEDC VA352 CH4B 01 CRB. FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .1200 .1250 .1300 .1400 .1500 .1600 .1700 .1800 .1820

PHI

156.000 .0107 .0143

159.200 .0029

170.700 .0181

171.900 .0379 .0508 .0625 .0546

173.400 .0112 .0183 .0250 .3250 .3500 .4000 .4250 .4500 .4750

180.000

X/L .1830 .1900 .1910 .2000 .2250 .2500 .2750 .3000 .3250 .3500 .3750 .4000 .4250 .4500 .4750

PHI

.000 .1132 .1033 .0951 .0839 .0851 .0959 .0973 .0922 .0877 .0859 .0812 .0756

11.500 .1130 .0970

12.000 .1078

21.500 .1269 .1215

23.000 .1422 .1129

31.500 .1361 .1091

34.000 .1275 .0992

35.000 .0418 .0022

51.000 .0191

57.500 .0209

59.500 .0214

61.000 .0169

63.000 .0012

70.000

96.500 .0225

103.000 .0046

105.000 .0118 .0022

106.000 .0168 .0031

135.000 .0046

140.000 .0060

141.400 .0118 .0022

151.000 .0168 .0031

150.000 .0046

X/L .5000 .5250 .5500 .5750 .6000 .6250 .6500 .6750 .7000 .7250 .7500 .7750 .8000 .8250 .8500

PHI

.000 .0745 .0739 .0752 .0730 .0723 .0718 .0693 .0650 .0641 .0622 .0577 .0572 .0496

21.500 .0810 .0664 .0681

63.000 .0006 .0013

64.000 .0002

65.000 .0007

65.500

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TABULATED DATA LISTING FOR CH4B (AEDC VA332)

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(ATK813)

AEDC VA332 CH4B C1 CRB, FUSELAGE

MACH (1) = 6.000 ALPHA (3) = 40.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.1200	.1250	.1300	.1400	.1500	.1550	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI															
.000	.1619		.1543	.1421	.1354		.1350				.1332		.1309		
10.000					.1625										
20.000					.1472										
25.000					.1584										
40.000					.1038										
45.000					.0608										
131.200									.0049						
145.400														.0091	
146.200															
158.000														.0097	
159.200															.0131
170.700															
171.900						.0476				.0214					
173.400		.0152			.0246		.0647				.0633		.0357		
180.000															
X/L	.1850	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
.000	.1339		.1196	.0000	.1119	.1125	.1016	.1164	.1131	.1059	.1013	.0970	.0931	.0888	
11.500			.1296												
12.000									.1127			.1066			
21.500															
23.000									.1206						
24.000			.1451												
31.500			.1567												
34.000									.1360						
35.000			.1506												
40.000			.1369						.1354						
45.000									.1201						
51.000			.0411						.0094						
57.500												.0019			
59.500															
61.000									.0171						
65.000									.0201						
70.000									.0219						
96.500				.0223											
105.000												.0236			
109.000															
135.000												.0012			
140.000				.0047											
141.400															
151.000		.0108		.0173		.0023		.0012							
160.000												.0020			
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500

AEDC VA352 CH4B 01 CRB. FUSELAGE

(ATKB13)

$$\text{MACH (1)} = 8.000 \quad \text{ALPHA (3)} = 40.000$$

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.0000	.0900	.0897	.0899	.0852	.0831	.0835	.0833	.0794	.0732	.0742	.0737	.0683	.0659	.0383	
21.500	.0958				.0784				.0803				.0616		
63.000	.0005														
64.000									.0008						
65.000					.0005								.0004		
65.500					.0081										
105.000	.0218							.0015					.0010		
111.000															
112.000					.0125						.0018				
113.000					.0142										
116.000									.0023						
135.000	.0026				.0029						.0057				
149.000															
180.000	.0031				.0034				.0034				.0026		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.0000	.0567	.0568	.0522	.0499	.0463	.0500	.0381	.0000		.0378	.0000	.0386			
21.500			.0593												
39.000							.0622								
52.500												.0500			
55.000			.0020			.0074									
65.000			.0020												
68.000						.0034									
100.000	.0022														
108.000	.0015					.0057									
112.000							.0081								
113.000									.0087						

AEDC VA352 OH4B 01 ORB. FUSELAGE

(ATRB14) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. YMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 95.550 Q1 = 1.994 HREF = .035

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .0000 .0050 .0100 .0200 .0250 .0300 .0400 .0500 .0600 .0700 .0750 .0800 .0900 .1000

PHI

.000 .0000 .6079 .5126 .3273 .2714 .2358 .2004 .1675 .0000 .1408 .1317 .1220
 10.000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
 14.000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
 20.000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
 22.000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
 24.500 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
 35.000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
 39.000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
 42.500 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
 48.000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
 60.000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
 119.000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
 180.000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000

X/L

PHI

.000 .1181 .1104 .1015 .0942 .0946 .0946 .0946 .0946 .0946 .0946 .0946 .0946
 10.000 .1181 .1104 .1015 .0942 .0946 .0946 .0946 .0946 .0946 .0946 .0946 .0946
 20.000 .1181 .1104 .1015 .0942 .0946 .0946 .0946 .0946 .0946 .0946 .0946 .0946
 25.500 .1181 .1104 .1015 .0942 .0946 .0946 .0946 .0946 .0946 .0946 .0946 .0946
 40.000 .1181 .1104 .1015 .0942 .0946 .0946 .0946 .0946 .0946 .0946 .0946 .0946
 45.500 .1181 .1104 .1015 .0942 .0946 .0946 .0946 .0946 .0946 .0946 .0946 .0946
 131.200 .1181 .1104 .1015 .0942 .0946 .0946 .0946 .0946 .0946 .0946 .0946 .0946
 145.400 .1181 .1104 .1015 .0942 .0946 .0946 .0946 .0946 .0946 .0946 .0946 .0946
 148.200 .1181 .1104 .1015 .0942 .0946 .0946 .0946 .0946 .0946 .0946 .0946 .0946
 156.000 .1181 .1104 .1015 .0942 .0946 .0946 .0946 .0946 .0946 .0946 .0946 .0946
 159.200 .1181 .1104 .1015 .0942 .0946 .0946 .0946 .0946 .0946 .0946 .0946 .0946
 170.700 .1181 .1104 .1015 .0942 .0946 .0946 .0946 .0946 .0946 .0946 .0946 .0946
 171.500 .1181 .1104 .1015 .0942 .0946 .0946 .0946 .0946 .0946 .0946 .0946 .0946
 173.400 .1181 .1104 .1015 .0942 .0946 .0946 .0946 .0946 .0946 .0946 .0946 .0946
 180.000 .1181 .1104 .1015 .0942 .0946 .0946 .0946 .0946 .0946 .0946 .0946 .0946

X/L

PHI

.000 .0883 .0846 .0806 .0775 .0768 .0775 .0796 .0758 .0734 .0680 .0647
 11.500 .0883 .0846 .0806 .0775 .0768 .0775 .0796 .0758 .0734 .0680 .0647

PARAMETRIC DATA

BETA = .000 RN/L = 2.000
 B.FLAP = .000 ELEVON = .000
 HAM/HT = .900



DATE 12 DEC 74

TABULATED DATA LISTING FOR CH4B (AE0C VA352)

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AEDC VA352 CH4B 01 CRB. FUSELAGE (ATK814)

$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (1) = 30.000$$

SECTION () ORBITER FUSELAGE

X/L	.1850	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
12.000								.0808							
21.500								.0895				.0762			
23.000															
24.000				.1076											
31.500				.1227											
34.000								.1016							
35.000				.1203											
40.000				.1140				.0956							
45.000								.0943							
51.000				.0422											
57.500								.0106							
59.500												.0026			
61.000								.0212							
65.000								.0232							
70.000								.0201							
96.500				.0216											
105.000												.0111			
106.000								.0152							
135.000								.0016				.0010			
140.000				.0050											
141.400			.0174												
151.000															
160.000															
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.000															
21.500	.0637	.0643	.0645	.0629	.0644	.0623	.0646	.0618	.0389	.0608	.0616	.0594	.0631	.0641	
63.000	.0059				.0347				.0622				.0585		
64.000	.0007														
65.000									.0008						
65.500					.0010								.0005		
105.000	.0325				.0205				.0067						
111.000															
112.000					.0391										
113.000					.0429										
116.000											.0102				
135.000	.0017				.0028				.0047						
149.000															
160.000	.0077				.0065				.0055		.0047				
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0360	1.0500			
PHI															

(ATK914)

AEDC VA352 CH4B 01 ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .8500 .8750 .9000 .9250 .9500 .9750 1.0000 1.0130 1.0140 1.0250 1.0360 1.0500

PHI

.000	.0675	.0697	.0690	.0705	.0672	.0839	.0737	.0000	.0783	.0000	.0843
21.500			.0707				.0841				.0839
39.000						.0044					
52.500					.0014						
55.000					.0020						
65.000					.0020						
68.000						.0017					
100.000					.0028						
106.000					.0021						
112.000						.0020					
113.000							.0026				
								.0042			

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.550 QI = 1.994 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .0000 .0050 .0100 .0200 .0250 .0300 .0400 .0500 .0600 .0700 .0750 .0760 .0800 .0900 .1000

PHI

.000	.0000	.6075	.5267	.3613	.2998	.2618	.2287	.1941	.0000		.1648	.1558	.1428
10.000												.1622	
14.000													.1656
20.000													.1712
22.000													.0755
24.500													
35.000							.0985						
59.000							.0712						
42.500							.0247						
48.000													
60.000							.0133						.0108
119.000										.0087			.0099
140.000													

X/L .1200 .1250 .1300 .1400 .1500 .1560 .1600 .1620 .1670 .1690 .1700 .1780 .1800 .1810 .1820

PHI

.000	.1994	.1267	.1207	.1106	.1115					.1095	.1111		
10.000				.1441									
20.000				.1300									
25.500				.1437									
40.000				.0973									
45.500				.0591									
131.200								.0055					.0087
145.400													
146.200													

.0111

AEDC VA352 CH4B 01 CRB. FUSELAGE

(ATKB15) (27 APR 74)

REFERENCE DATA

SREF =	.8236 SQ.FT.	XMRP =	.0000 IN.
LREF =	22.5803 IN.	YMRP =	.0000 IN.
BREF =	16.3919 IN.	ZMRP =	.0000 IN.
SCALE =	.0175 SCALE		

MACH (1) =	8.000	ALPHA (1) =	25.000	TI	=	97.867	QI	=	3.955	HREF	=	.049
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SECTION (1) CRIBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

x/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
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[illegible]

.1200	.1250	.1300	.1400	.1500	.1600	.1620	.1670	.1690	.1700	.1780	.1810	.1820
-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

FH-I				
.000	.0976	.0918	.0833	.0747
10.000				.0718
20.000				
25.500				
40.000				
45.500				

131.200	.0084
145.400	
146.200	.0088
156.000	
159.200	.0191
170.700	.0281
	.0412

Variable	Mean	Std. Dev.	Minimum	Maximum
AGE	38.50	12.50	18	65
SEX	1.50	.50	1	2
EDUC	12.50	2.50	8	16
INCOME	15.00	5.00	10	20
PHI	1.50	.50	1	2

(ATX015)

AEDC VA352 CH4B 01 CRB. FUSELAGE

$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (1) = 25.000$$

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.1850	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
12.000								.0651				.0617			
21.000								.0753							
23.000															
24.000				.0897											
31.000				.1028											
34.000								.0826							
35.000				.0997											
40.000				.1021				.0780							
45.000								.0804							
51.000				.0407				.0138				.0041			
57.500								.0300							
59.500								.0263							
61.000								.0165							
65.000															
70.000															
96.500				.0217								.0140			
105.000								.0138				.0008			
106.000								.0020							
135.000				.0141											
140.000															
141.400															
151.000			.0357									.0095			
180.000				.0113		.0018		.0024				.0095			
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.000	.0507	.0507	.0502	.0504	.0521	.0529	.0545	.0557	.0550	.0612	.0668	.0678	.0874	.0986	
21.500	.0562				.0471				.0564				.0763		
63.000	.0017														
64.000									.0011				.0014		
65.000															
105.000	.0218				.0022				.0212				.0081		.0094
111.000					.0438										
112.000					.0277										
113.000					.0253										
116.000											.0603				
135.000	.0029				.0060				.0058						
149.000											.0062				
180.000	.0097				.0068				.0059					.0067	
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			

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FABULATED DATA LISTING FOR CH4B (AEDC VA352)

PAGE 97

AEDC VA352 CH4B 01 CRB. FUSELAGE (ATKB1S)

MACH (1) = 8.000 ALPHA (1) = 25.000

SECTION (1) ORBITER FUSELAGE

[illegible]

MACH (1) =	8.000	ALPHA (2) =	30.000	TI	=	97.867	Q1	=	3.955	HREF	=	.049
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SECTION (1) ORBITER FUSELAGE	DEPENDENT VARIABLE HU/HO
1	1.0000
2	1.0000
3	1.0000
4	1.0000
5	1.0000
6	1.0000
7	1.0000
8	1.0000
9	1.0000
10	1.0000
11	1.0000
12	1.0000
13	1.0000
14	1.0000
15	1.0000
16	1.0000
17	1.0000
18	1.0000
19	1.0000
20	1.0000
21	1.0000
22	1.0000
23	1.0000
24	1.0000
25	1.0000
26	1.0000
27	1.0000
28	1.0000
29	1.0000
30	1.0000
31	1.0000
32	1.0000
33	1.0000
34	1.0000
35	1.0000
36	1.0000
37	1.0000
38	1.0000
39	1.0000
40	1.0000
41	1.0000
42	1.0000
43	1.0000
44	1.0000
45	1.0000
46	1.0000
47	1.0000
48	1.0000
49	1.0000
50	1.0000
51	1.0000
52	1.0000
53	1.0000
54	1.0000
55	1.0000
56	1.0000
57	1.0000
58	1.0000
59	1.0000
60	1.0000
61	1.0000
62	1.0000
63	1.0000
64	1.0000
65	1.0000
66	1.0000
67	1.0000
68	1.0000
69	1.0000
70	1.0000
71	1.0000
72	1.0000
73	1.0000
74	1.0000
75	1.0000
76	1.0000
77	1.0000
78	1.0000
79	1.0000
80	1.0000
81	1.0000
82	1.0000
83	1.0000
84	1.0000
85	1.0000
86	1.0000
87	1.0000
88	1.0000
89	1.0000
90	1.0000
91	1.0000
92	1.0000
93	1.0000
94	1.0000
95	1.0000
96	1.0000
97	1.0000
98	1.0000
99	1.0000
100	1.0000

[illegible][illegible]

.0098

(ATK815)

AEDC VA352 CH4B 01 CRB. FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 30.000

SECTION (1) CRBITER FUSELAGE

DEPENDENT VARIABLE MU/HO

X/L .1200 .1250 .1300 .1400 .1500 .1560 .1600 .1620 .1670 .1690 .1700 .1780 .1800 .1810 .1820

PH-I

156.000
159.200
170.700
171.900
173.400
190.000.0189
.0247

.0129

.0227

.0456

.0209

.0552

.1061

.0558

X/L

.1830

.1900

.1910

.2000

.2250

.2500

.2750

.3000

.3250

.3500

.3750

.4000

.4250

.4500

.4750

PH-I

.000
11.500
12.000
21.500
23.000
24.000
31.500
34.000
35.000
40.000
45.000
51.000
57.500
59.500
61.000
65.000
70.000
96.500
105.000
106.000
135.000
140.000
141.400
151.000
160.000

.0704

.0785

.0792

.0904

.1017

.0991

.0950

.0112

.0241

.0259

.0212

.0153

.0014

.0037

.0031

.0026

.0022

.0019

.0070

.0061

.0061

.0061

.0061

.0061

.0061

.0061

.0061

.0061

.0061

.0061

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.0061

AEDC VA332 CH4B 01 CRB. FUSELAGE (ATK815)

MACH (1) = 8.000 ALPHA (2) = 30.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HQ

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0234														
111.000					.0472				.0100				.0042		.0030
112.000					.0405										
113.000					.0334										
116.000															
135.000	.0023				.0045				.0056		.0207				
149.000											.0032				
180.000	.0071				.0050				.0047				.0034		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.2419	.2270	.2108	.2004	.1749	.1489	.1726	.0000		.1655	.0000	.1667			
21.500			.2100												
39.000															
52.500							.1734					.1489			
55.000			.0027			.0072									
65.000			.0031												
68.000															
100.000			.0038			.0030									
108.000			.0043			.0037									
112.000							.0026								
113.000													.0036		

MACH (1) =	8.000	ALPHA (3) =	35.000	TI	=	97.867	QI	=	3.955	HSF	=	.049
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SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
.000	.0000	.6085	.5269	.3618		.3038	.2593	.2321	.1950	.0000			.1633	.1583	.1453
10.000															.1627
14.000								.2717							.1685
20.000								.2542							.1735
22.000								.1010							.0752
24.500															
35.000															
39.000								.0726							
42.500												.0511			
48.000								.0254							
60.000															
119.000															
140.000		.0925		.0293				.0127			.0093				.0102
X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820

(ATK815)

AEDC VA352 CH4B 01 CRB. FUSELAGE

MACH (1) = 8.000 ALPHA (3) = 35.000

SECTION (1) CRB11TER FUSELAGE

DEPENDENT VARIABLE HU/H0

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI	.1426	.1339	.1226	.1132	.1134						.1149	.1128			
10.000				.1394											
20.000				.1347											
25.500				.1466											
40.000				.1002											
45.500				.0595											
131.200									.0059					.0107	
145.400								.0131						.0156	.0217
146.200															
156.000															
159.200															
170.750															
171.950															
175.400															
180.000															
X/L	.1830	.1900	.1910	.2000	.2250	.0313	.0716		.0216		.0950	.0686		.4250	.4750
PHI	.1165			.1048	.0000	.1036	.0975	.0901	.0996	.0936	.0961	.0968	.0958	.0949	.0919
11.500				.1112											
12.000								.0992							
21.500								.1113				.0942			
23.000															
24.000				.1293											
31.500				.1431											
34.000								.1210							
35.000				.1384				.1170							
40.000				.1270				.1096							
45.000															
51.000				.0431				.0095							
57.500												.0018			
59.500								.0220							
61.000								.0238							
65.000								.0232							
70.000															
96.500				.0216								.0176			
105.000								.0157							
106.000								.0010				.0007			
135.000				.0062											
140.000															
141.400															
151.000	.0095		.0156	.0146		.0020		.0016				.0023			
160.000															
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8290

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 101

AEDC VA352 CH48 01 CRB. FUSELAGE (ATK815)

MACH (1) = 0.000 ALPHA (3) = 35.000

SECTION (1) CRB1TER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.000	.0999	.1077	.1226	.1380	.1619	.1923	.2172	.2375	.2588	.2796	.2916	.2841	.3129	.3138	
21.500	.1008				.1506				.2744				.3001		
63.000	.0004														
64.000									.0020						
65.000													.0005		
65.500					.0008										
105.000	.0280				.0215				.0063				.0016		
111.000															.0015
112.000					.0350						.0063				
113.000					.0348										
116.000															
135.000	.0015				.0032				.0061						
149.000															
180.000	.0024				.0029				.0047				.0055		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.2976	.2669	.2502	.2390	.2117	.1737	.2049	.0000		.1990	.0000	.1980			
21.500		.2487													
39.000							.1987						.1737		
52.500							.0096								
55.000			.0016												
65.000			.0014												
68.000							.0058								
100.000			.0014												
108.000			.0014												
112.000							.0025								
113.000							.0060						.0091		

(ATK 916)

ACDC VA352 CH48 01 CRB. FUSELAGE

$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (1) = 30.000$$

SECTION (1) ORBITER FUSELAGE

SECTION (1) CRITTER FUSELAGE

DEPENDENT VARIABLE HU/HO

[illegible]

AEDC VA352 CH4B 01 CRB. FUSELAGE

(ATK017) (27 APR 74)

REFERENCE DATA

SREF =	.8236 SQ.FT.	XMRP =	.0000 IN.
LREF =	22.5803 IN.	YMRP =	.0000 IN.
DREF =	18.3919 IN.	ZMRP =	.0000 IN.
SCALE =	.0175 SCALE		

PARAMETRIC DATA

BETA = .000 RV/L = 3.720
 8. FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) =	8.000	ALPHA (1) =	30.000	TI	=	97.700	QI	=	3.949	HREF	=	.049
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SECTION (1) CRITTER FUSELAGE

[illegible]

(ATRB17)

AEDC VA332 CH4B 01 ORB, FUSELAGE

MACH (1) = 5.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .1835 .1900 .1910 .2000 .2250 .2500 .2750 .3000 .3250 .3500 .3750 .4000 .4250 .4500 .4750

PHI

12.000								.0825						
21.500								.0909				.0791		
23.000														
24.000			.1103											
31.500			.1239											
34.000								.1032						
35.000			.1196					.0992						
40.000			.1157					.0977						
45.000														
51.000			.0422					.0106				.0026		
57.500														
59.500								.0243				.0104		
61.000								.0253				.0009		
65.000								.0211						
70.000														
96.500			.0211											
105.000								.0152				.0104		
106.000								.0014				.0009		
135.000														
140.000			.0067											
141.400														
151.000			.0200											
180.000								.0035				.0080		
X/L	.5000	.6250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250

PHI

.0000	.0713	.0714	.0763	.0768	.0841	.0921	.1045	.1182	.1312	.1530	.1730	.1831	.2184	.2397
21.500	.0731				.0739				.1406				.2188	
63.000	.0007								.0033				.0006	
64.000														
65.000					.0012								.0042	
65.500					.0460				.0034					
105.000	.0232													
111.000					.0410									
112.000					.0341									
113.000														
115.000					.0047				.0053		.0202			
135.000	.0021													
149.000					.0050				.0048		.0031		.0032	
180.000	.0073													
X/L	.6500	.6750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500		

PHI



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TABULATED DATA LISTING FOR CH4B (AEDC VA352)

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AEDC VA352 CH4B 01 CRS, FUSELAGE (ATK817)

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0230	1.0360	1.0500
PHI												
.000	.2390	.2178	.2093	.1941	.1732	.3986	.3268	.4237		.4261	.4296	.4275
21.500			.2113									
39.000												
52.500							.3081					.3986
55.000			.0029			.0045						
65.000			.0032									
66.000												
100.000			.0040			.0035						
108.000			.0042			.0041						
112.000							.0025					
113.000								.0032				

MACH (1) = 8.000 ALPHA (2) = 35.000

TI = 97.700 QI = 3.949 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.0000	.0030	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
.000	.0000	.6131	.5312	.3601		.3041	.2598	.2306	.1938	.0000		.1624	.1580	.1446	.1414
10.000								.2707						.1673	.1738
14.000								.2559						.0754	
20.000								.1006							
24.500								.0730							
35.000								.0254				.0906			
39.000															
42.500															
48.000															
60.000															
119.000															
180.000															
X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI															
.000	.1417	.1317	.1224	.1134	.1095	.0129	.0083							.0101	.0130
10.000				.1377											
20.000				.1267											
25.500				.1479											
40.000				.1001											
45.500				.0609											
131.200									.0058						
145.400															
146.200									.0136						.0106

(ATRB17)

AEDC VA352 OR48 01 OR8. FUSELAGE

MACH (1) = 0.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .1200 .1250 .1300 .1400 .1500 .1600 .1620 .1670 .1690 .1700 .1780 .1800 .1810 .1820

PHI

156.000

159.200

170.700

171.900

173.400

180.000

.0152

.0218

.0091

.0211

.0808

.0683

X/L

.1830 .1900 .1910 .2000 .2250 .2500 .2750 .3000 .3250 .3500 .4000 .4250 .4500 .4750

PHI

.000

11.900

12.000

21.500

23.000

24.000

31.500

34.000

35.000

40.000

45.000

51.000

57.500

59.500

61.000

65.000

70.000

96.500

105.000

106.000

135.000

140.000

141.400

151.000

180.000

.1010.

.1108

.1222

.1194

.1088

.0096

.0222

.0238

.0228

.0158

.0012

.0016

.0022

.0022

.0022

.0022

.0022

.0018

.0183

.0007

.0021

.0016

.0022

.0043

.0158

.0090

.0050

.0250

.0500

.1001

.1085

.1223

.1357

.1626

.1950

.2129

.2426

.2580

.2783

.2929

.2901

.3120

.3172

PHI

.000

21.500

63.000

64.000

65.000

65.500

.0007

.0019

.2733

.3005

.3120

.3172

.8250

.8290

.0006

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TABULATED DATA LISTING FOR CH4B (AEDC VA352)

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AEDC VA352 CH4B 01 CRB. FUSELAGE

(ATK817)

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8290
PHI															
105.000	.0292				.0217				.0064				.0018		.0016
111.000															
112.000					.0347										
113.000					.0350										
116.000											.0063				
135.000	.0016				.0034				.0064						
149.000											.0057				
180.000	.0023				.0030				.0045				.0057		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.2969	.2660	.2522	.2374	.2131	.3948	.4163	.5108		.4585	.4487	.4372			
21.500				.2461											
39.000							.3464						.3948		
52.500							.0054								
55.000			.0020												
65.000			.0018												
68.000															
100.000			.0017				.0049								
108.000			.0016												
112.000						.0030				.0027					
113.000									.0041						

AEDC VA332 CH4B 01 CRB. FUSELAGE

(ATKB18) (27 APR 74)

REFERENCE DATA

SHEF = .8238 SQ.FT. XMRP = .0000 IN.
LREF = 22.5803 IN. YMRP = .0000 IN.
DREF = 16.3919 IN. ZMRP = .0000 IN.
SCALE = .0175 SCALE

BETA = -5,000 RN/L = 3,720
B.FLAP = 10,000 ELEVEN = 5,000
HAW/HT = .900

PARAMETRIC DATA

MACH (1) =	8.000	ALPHA (1) =	30.000	TI =	97.200	Q1 =	3.933	HEF =	.049
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SECTION / CHARACTER	DEPENDENT VARIABLE HU/HQ
1	0.00
2	0.00
3	0.00
4	0.00
5	0.00
6	0.00
7	0.00
8	0.00
9	0.00
10	0.00
11	0.00
12	0.00
13	0.00
14	0.00
15	0.00
16	0.00
17	0.00
18	0.00
19	0.00
20	0.00
21	0.00
22	0.00
23	0.00
24	0.00
25	0.00
26	0.00
27	0.00
28	0.00
29	0.00
30	0.00
31	0.00
32	0.00
33	0.00
34	0.00
35	0.00
36	0.00
37	0.00
38	0.00
39	0.00
40	0.00
41	0.00
42	0.00
43	0.00
44	0.00
45	0.00
46	0.00
47	0.00
48	0.00
49	0.00
50	0.00
51	0.00
52	0.00
53	0.00
54	0.00
55	0.00
56	0.00
57	0.00
58	0.00
59	0.00
60	0.00
61	0.00
62	0.00
63	0.00
64	0.00
65	0.00
66	0.00
67	0.00
68	0.00
69	0.00
70	0.00
71	0.00
72	0.00
73	0.00
74	0.00
75	0.00
76	0.00
77	0.00
78	0.00
79	0.00
80	0.00
81	0.00
82	0.00
83	0.00
84	0.00
85	0.00
86	0.00
87	0.00
88	0.00
89	0.00
90	0.00
91	0.00
92	0.00
93	0.00
94	0.00
95	0.00
96	0.00
97	0.00
98	0.00
99	0.00
100	0.00

[illegible]

AEDC VA352 CH4B 01 CRB. FUSELAGE (ATKB10)

$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (1) = 30.000$$

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

[illegible]

(ATK218)

AEDC VA352 CH4B 01 CRB. FUSELAGE

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
#41												
21.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
39.000												
52.500			.0057			.0082	.3225					.4415
55.000			.0077									
68.000						.0088						
100.000			.0077									
108.000			.0387			.0367	.0078					
112.000												
113.000									.0074			

MACH (1) =	8.000	ALPHA (2) =	35.000	TI =	97.200	QI =	3.933	HREF =	.049
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SECTION (1) CRITTER FUSELAGE

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
PHI														
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000		.0000	.0000	.0000
10.000														.1727
14.000								.2907						.1846
20.000								.2785						.1987
22.000								.1268						.1022
24.900									.0942					
35.000									.0321					
39.000											.0664			
42.500														
48.000														
50.000														
119.000				.0309										.0138
180.000			.0204					.0121			.0076			.0079

X/L	.1200	.1250	.1300	.1400	.1500	.1600	.1670	.1690	.1700	.1780	.1800	.1810	.1820
P-1	.0000	.0000	.0000	.0000	.0000	.0000			.0000		.0000		
10.000					.1537								
20.000					.1410								
25.500					.1652								
40.000					.1293								
45.500					.0848								
131.200							.0000						
145.400												.0000	
146.200							.0000						

AEDC VA352 CH4B 01 CRB. FUSELAGE

(ATKB18)

$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (2) = 35.000$$

SECTION (1) ORBITER FUSELAGE

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PFI															
156.000														.0000	.0000
159.200															
170.700															
171.900															
173.400															
180.000															
X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PFI															
.000	.0000	.0105		.0000	.0128	.0000	.0217	.0000	.0000	.0000	.0829	.0000	.0219		
11.500				.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
12.000				.1175				.1042							
21.500								.0000							
23.000															
24.000				.0000											
31.500				.1666											
34.000								.1347							
35.000				.1588											
40.000				.1432				.1331							
45.000								.1320							
51.000				.0657											
57.500								.0201							
59.500												.0046			
61.000								.0438							
65.000								.0448							
70.000								.0356							
96.500				.0314											
105.000															
106.000								.0214				.0207			
135.000								.0016				.0012			
140.000				.0000											
141.400	.0000														
151.000		.0000		.0104		.0105						.0036			
180.000								.0039							
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8290
PFI															
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	
21.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	
63.000	.0019				.0000			.0000	.0000				.0000		
64.000									.0036						
65.000															
65.500					.0034								.0021		

AEDC VA352 CH4B Q1 ORB, FUSELAGE (ATK818)

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE MU/HG

X/L	.9000	.9250	.9500	.9750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8290
RH-I															
105.000	.0328				.0663			.0663					.0185		.0035
111.000					.0448										
112.000					.0410										
113.000											.0695				
116.000					.0041			.0053			.0065				
135.000	.0022														
149.000					.0035			.0051					.0046		
180.000	.0032														
X/L	.8900	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
RH-I															
.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000		.0000	.0000	.0000			
21.500			.0000												
39.000															
52.500						.0090		.3523					.4370		
55.000			.0096												
65.000			.0098												
68.000						.0087									
100.000			.0105												
108.000			.0063			.0069									
112.000						.0035									
113.000								.0044							

(ATK819)

AEDC VA352 CH48 01 ORB. FUSELAGE

MACH (1) = 0.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI															
156.000														.0000	.0000
159.200											.0000				
170.700															
171.900															
173.400															
180.000															
X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
.000	.0000			.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
11.500				.1173											
12.000								.1016							
21.500								.0000				.0000			
23.000															
24.000				.0000											
31.500				.1583											
34.000								.1348							
35.000				.1592											
40.000				.1606				.1322							
45.000								.1311							
51.000				.0642				.0191							
57.500												.0051			
59.500								.0413							
61.000								.0438							
65.000								.0366							
70.000															
96.500				.0307											
105.000												.0197			
106.000								.0222							
135.000								.0022				.0015			
140.000				.0000											
141.400															
151.000				.0000											
160.000												.0034			
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8290
PHI															
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
21.500	.0000														
63.000	.0000														
64.000	.0015														
65.000															
65.500					.0023				.0012					.0019	

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 119

MACH (1) = 8.000 ALPHA (2) = 35.000

AEDC VA352 CH48 01 CRB. FUSELAGE

(ATRB19)

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8290
PHI															
105.000	.0374				.0698			.0215					.0080		.0120
111.000															
112.000					.0706										
113.000					.0566										
116.000										.0467					
135.000	.0023				.0038			.0055							
149.000										.0070					
180.000	.0021				.0025			.0033					.0030		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000			
21.500			.0000												
39.000															
52.500							.2155							.2980	
55.000			.0032			.0078									
65.000			.0040												
69.000															
100.000			.0061			.0091									
108.000			.0099												
112.000						.0063									
113.000						.0035			.0041						

(ATK820) (27 APR 74)

AEDC VA352 CH48 O1 CRP. FUSELAGE

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.900 QI = 1.980 HREF = .035

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
PHI	.0000	.6077	.5161	.3287		.2756	.2345	.2028	.1687	.0000		.1417	.1321	.1234
10.000														.1394
14.000														.1434
20.000														.1558
22.000														.0766
24.500														
35.000														
39.000														
42.500											.0544			
48.000														.0150
60.000														.0082
119.000				.0691	.0421		.0177			.0106				
180.000														.1820

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI	.1174		.1105	.1034	.0926		.0947				.0918		.0912		
10.000					.1344										
20.000					.1111										
25.500					.1282										
40.000					.0919										
45.500					.0585										
131.200									.0053						
145.400									.0063						
146.200															.0080
156.000															.0148
159.200															.0210
170.700						.0329				.0205		.0074			
171.900					.0145						.1079		.0550		
173.400		.0078													
180.000															

X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI							.0461								
.0000		.0859		.0844	.0000	.0723	.0697	.0729	.0807	.0793	.0764	.0762	.0739	.0694	.0644
11.500				.0920											



AE0C VA352 CH4B 01 CR9. FUSELAGE (ATK820)

$$\text{MACH (1)} = 8.000 \quad \text{ALPHA (1)} = 30.000$$

SECTION (1) CRITTER FUSELAGE

DEPENDENT VARIABLE HU/HO

[illegible]

(ATRS20)

AEDC VAS3E CH48 01 CRB, FUSELAGE

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .8500 .8750 .9000 .9250 .9500 .9750 1.0000 1.0130 1.0140 1.0250 1.0360 1.0500

PHI	.000	.0718	.0734	.0721	.0733	.0686	.3624	.1817	.2974	.3683	.3864	.3857
21.500	.0756											
39.000							.0042	.1969				.3624
52.500				.0008								
55.000				.0015								
68.000						.0015						
100.000				.0025								
108.000				.0020								
112.000						.0017						
113.000							.0020					

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.900 QI = 1.980 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.0000	.0055	.0100	.0200	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
PHI	.0000	.6120	.5297	.3649	.3023	.2601	.2278	.1895	.0000	.1636	.1576	.1432	.1618
10.000							.2674					.1655	
14.000													.1721
20.000							.2509						.0756
22.000							.1005						
24.500							.0737						
35.000							.0266				.0499		
39.000													.0105
42.500													.0102
46.000													
60.000							.0130		.0081				
119.000				.0310									
160.000													

X/L	.1200	.1250	.1300	.1400	.1500	.1600	.1670	.1700	.1780	.1800	.1810	.1820
PHI	.1414	.1336	.1234	.1144	.1178	.1128	.1126					
10.000				.1407								
20.000				.1293								
25.500				.1461								
40.000				.0996								
45.500				.0595								
131.200							.0050					.0081
145.400												
146.200							.0110					

(ATK820)

AEDC VA392 CH48 01 CRB. FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0335				.0115				.0048				.0009		.0008
111.000					.0203										
112.000					.0237										
113.000										.0038					
116.000					.0026				.0050						
135.000	.0016									.0072					
149.000					.0015				.0017						
180.000	.0016												.0031		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.1006	.1057	.1043	.1089	.1026	.3670	.2307	.3818		.4242	.4255	.4044			
21.500		.1075					.2575					.3670			
39.000					.0055										
52.500			.0006												
55.000			.0006												
65.000					.0018										
68.000															
100.000			.0008												
108.000			.0007												
112.000					.0015		.0021								
113.000									.0038						

AEDC VA352 CH4B 01 CRB. FUSELAGE

(ATK821) (27 APR 74)

REFERENCE DATA

SREF =	.8238 SQ.FT.	XMRP =	.0000 IN.
LREF =	22.5803 IN.	YMRP =	.0000 IN.
DREF =	16.3919 IN.	ZMRP =	.0000 IN.
SCALE =	.0175 SCALE		

PARAMETRIC DATA

BETA	=	-5,000	RN/L	=	.500
B.FLAP	=	10,000	ELEVON	=	5,000
HAW/HT	=	.900			

WACH (1) =	8.000	ALPHA (1) =	30.000	TI	=	91.950	QI	=	,518	HREF	=	,017
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SECTION (1)C8BITER FUSELAGE

[illegible]

(ATK821)

AEDC VA332 OH-6B 01 ORB, FUSELAGE

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
12.000								.0882							
21.500								.0000				.0000			
23.000															
24.000				.0000											
31.500			.1422												
34.000				.1437											
35.000				.1503											
40.000								.1253							
45.000															
51.000				.0680				.0210				.0074			
57.500															
59.500								.0441							
61.000								.0448							
65.000								.0323							
70.000															
96.500				.0312								.0199			
105.000								.0214				.0021			
106.000								.0035							
135.000															
140.000				.0000								.0042			
141.400															
151.000			.0000												
160.000				.0063				.0019							
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
21.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
63.000	.0022														
64.000									.0019						
65.000													.0009		
65.500					.0027				.0174				.0071		.0076
105.000	.0405				.0589										
111.000															
112.000					.0686										
113.000					.0629										
116.000											.0207				
135.000	.0035				.0043				.0077						
149.000											.0048				
160.000	.0050				.0041				.0044				.0031		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0150	1.0140	1.0250	1.0380	1.0500			
PHI															



AEDC VA352 CH48 O1 ORB. FUSELAGE (ATK821)

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
PHI												
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
21.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
39.000												
52.500							.0381					.2137
55.000							.0015					
65.000							.0011					
68.000							.0017					
100.000							.0032					
108.000							.0087					
112.000							.0082					
113.000							.0036					
							.0045					

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 91.950 Q1 = .518 HREF = .017

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
10.000															.0000
14.000															.1772
20.000								.2926							.1853
22.000								.2803							.1998
24.500								.1313							.1044
35.000								.0984							
39.000								.0367							
42.500												.0701			
48.000								.0156			.0088				.0168
60.000															.0069
119.000															
180.000															
X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI															
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000								
10.000															
20.000								.1541							
25.500								.1428							
40.000								.1711							
45.500								.1306							
131.200								.0679							
145.400															
146.200									.0000		.0000		.0000		.0000

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TABULATED DATA LISTING FOR CH48 (AEDC VA392)

PAGE 129

AEDC VA392 CH48 01 CR8. FUSELAGE

(ATRB21)

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITTER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8290
PHI															
105.000	.0372				.0263			.0116					.0048		.0063
111.000															
112.000					.0404										
113.000					.0479										
116.000											.0169				
135.000	.0036				.0061			.0065			.0038				
149.000															
180.000	.0031				.0029			.0036					.0099		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000			
21.900															
39.000															
52.900															
55.000			.0019			.0036									
65.000	.0017						.0599								.2016
68.000															
100.000			.0033			.0050									
108.000			.0056			.0044									
112.000							.0029								
113.000								.0035							

AEDC VA352 CH48 01 CR8. FUSELAGE

(ATK022) (27 APR 74)

REFERENCE DATA

SREF =	.0238 SQ. FT.	XMRP =	.0000 IN.
LREF =	22.5803 IN.	YMRP =	.0000 IN.
BREF =	16.3919 IN.	ZMRP =	.0000 IN.
SCALE =	.0175 SCALE		

BETA	=	.000	RN/L	=	.500
S_FLAP	=	10.000	ELEVON	=	5.000
HAW/HT	=	.900			

WACH (1) =	8 000	ALPHA (1) =	30 000	TI =	93 400	Q1 =	.523	HREF =	.018
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SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PM-1															
.000	.0000	.6235	.5224	.3423		.2841	.2415	.2104	.1714	.0000			.1469	.1404	.1289
10,000															.1448
14,000								.2444							
20,000								.2299							.1484
22,000															
24,500															.1583
35,000								.1056							
39,000															.0802
42,500								.0778							
48,000												.0554			
60,000								.0347							
119,000															.0164
180,000	.0368		.0458					.0201			.0112				.0088

y/L
.1200 .1250 .1300 .1400 .1500 .1600 .1800 .1990 .1700 .1780 .1800 .1810 .1820

P41			
.000	.1209	.1141	.0969
10.000			.1176
20.000			.1063
25.500			.1282
40.000			.0904
45.500			.0615

0038

0000

.0079	.0104	.0157
-------	-------	-------

0131

0077	.0151
0217	

	.1105	.0368
3000	3250	3500
	3750	4000
	4250	4500
	4750	

[illegible]

DATE 12 DEC 74 TABULATED DATA LISTING FOR CH48 (AEDC VA352)

(ATK822)

AEDC VA352 CH48 C1 ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .8500 .8750 .9000 .9250 .9500 .9750 1.0000 1.0130 1.0140 1.0250 1.0380 1.0500

PHI
 .000 .0401 .0395 .0333 .0193 .0091 .1301 .0233 .0356 .0717 .1124 .1492
 21.500 .0384
 39.000
 52.500
 55.000 .0012
 65.000 .0010
 68.000 .0031
 100.000 .0002
 108.000 .0007
 112.000 .0018
 113.000 .0020

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 93.400 QI = .523 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .0000 .0050 .0100 .0200 .0250 .0300 .0400 .0500 .0600 .0700 .0750 .0800 .0900 .1000

PHI
 .000 .0000 .6196 .3554 .3700 .3079 .2684 .2267 .2171 .0000 .1717 .1628 .1498 .1655
 10.000 .2713
 14.000 .2547
 20.000 .1040
 24.500 .0754
 35.000 .0284
 39.000 .0152
 42.500 .0098
 48.000 .0027
 60.000 .0127
 119.000 .0085
 180.000

X/L .1200 .1250 .1300 .1400 .1500 .1560 .1600 .1620 .1670 .1690 .1700 .1760 .1810 .1820

PHI
 .000 .1423 .1367 .1272 .1163 .1201 .1142 .1139 .0045 .0065
 10.000 .1526
 20.000 .1225
 25.500 .1468
 40.000 .0995
 45.500 .0626
 131.200 .0034
 145.400 .0054
 146.200

(ATK822)

AEDC VA392 CH4B 01 CRB. FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
109.000	.0220				.0086				.0037				.0008		.0009
111.000					.0123										
112.000					.0141										
113.000											.0029				
116.000					.0039				.0028		.0037				
135.000	.0032								.0050				.0055		
149.000					.0036										
180.000	.0030														
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.0508	.0484	.0419	.0280	.0104	.1858	.0293	.0512		.1085	.1717	.2274			
21.500			.0463												
39.000						.0022								.1858	
52.500			.0025												
55.000			.0020												
65.000						.0029									
68.000															
100.000			.0020												
109.000			.0007			.0016									
112.000					.0013										
113.000								.0015							

(ATR823)

AEDC VA352 QH4B 01 ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (1) = 25.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.1830	.1900	.1910	.2000	.2230	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
12.000								.0648				.0613			
21.500								.0735							
23.000				.0914											
24.000			.1048												
31.500								.0887							
34.000				.1025											
35.000				.1040				.0884							
40.000								.0858							
45.000															
51.000				.0442				.0131				.0039			
57.500								.0248							
59.500								.0253							
61.000								.0188							
65.000															
70.000															
96.500				.0243								.0130			
105.000								.0151				.0020			
106.000								.0040							
135.000															
140.000				.0072											
141.400	.0080														
151.000		.0210		.0132		.0036		.0025				.0053			
180.000															
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.0000	.0519	.0520	.0489	.0527	.0493	.0509	.0483	.0482	.0440	.0422	.0415	.0386	.0373	.0333	
21.500	.0577				.0475				.0473				.0360		
63.000	.0013														
64.000									.0009				.0003		
65.000					.0020										
65.500					.0239				.0089				.0038		
105.000	.0302														
111.000					.0334										
112.000					.0367										
113.000															
116.000					.0037										
135.000	.0032								.0057		.0099				
149.000											.0033				
180.000	.0064				.0060				.0059				.0038		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			

PHI

AEDC VA352 CH48 01 CR8. FUSELAGE
(ATK823)

MACH (1) = 8.000 ALPHA (1) = 25.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
PHI												
.000	.0309	.0300	.0247	.0132	.0081	.1169	.0155	.0225		.0432	.0656	.0853
21.500			.0306									
39.000												
52.500						.0242						.1169
55.000						.0013						
65.000			.0010									
68.000			.0010									
100.000			.0018		.0024							
108.000			.0037									
112.000					.0028							
113.000					.0022				.0026			

MACH (1) = 8.000 ALPHA (2) = 30.000 T1 = 93.433 Q1 = .521 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
.000	.0000	.6267	.5267	.3704		.2807	.2437	.2085	.1717	.0000		.1467	.1381	.1286	.1439
10.000															
14.000								.2484							
20.000								.2312							.1483
22.000															.1570
24.500								.1047							
35.000															.0792
39.000								.0762							
42.500								.0361				.0533			
48.000															
60.000								.0219			.0139				.0167
119.000		.0417		.0471											.0094
180.000															
X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI															
.000	.1227	.1152	.1047	.0973	.1428	.1153	.1276	.0934	.0626						
10.000															
20.000															
25.500															
40.000															
45.500															
131.200															
145.400															
146.200									.0059		.0943	.0941			.0074

(ATK823)

ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 30.000

SECTION (1) CRBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PH1															
105.000	.0321								.0052				.0012		.0017
111.000															
112.000															
113.000															
116.000															
135.000	.0032								.0034		.0067				
149.000															
180.000	.0049								.0048		.0031		.0051		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			

三

[illegible]

MACH (1) =	8.000	ALPHA (3) =	35.000	TI	=	93.433	QI	=	.521	HREF	=	.018
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SECTION (1) CRITTER FUSELAGE

DEPENDENT VARIABLE HUSHO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
.000	.0000	.6196	.5394	.3609		.3107	.2708	.2392	.1997	.0000			.1707	.1640	.1513
10.000															.1678
14.000								.2708							.1690
20.000								.2508							.1768
22.000															.0792
24.500								.1038							
35.000															
39.000								.0739							
42.500												.0528			
46.000								.0295							
60.000															
119.000															
180.000			.0583		.0351			.0153			.0093			.0122	.0081
X/L	.1200	.1250	.1300	.1400	.1500	.1600	.1700	.1800	.1900	.2000	.2100	.2200	.2300	.2400	.2500

7/x

(ATK823)

AEDC VA352 CH48 01 ORB. FUSELAGE

MACH (1) = 6.000 ALPHA (3) = 35.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI	.1475	.1431	.1292	.1198	.1184						.1165	.1145			
10.000				.1645											
20.000				.1321											
25.500				.1488											
40.000				.0989											
45.500				.0618											
131.200									.0048						
145.400														.0064	
146.200								.0052						.0086	
156.000															.0144
159.200															
170.700															
171.900															
173.400		.0080			.0122	.0238	.0334			.0880		.0449			
180.000									.0160			.0045			
X/L	.1850	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI	.1146	.1146	.1037	.0938	.0924	.0884	.0981	.0973	.0921	.0900	.0883	.0846	.0817		
11.500			.1143												
12.000						.0995						.0944			
21.500						.1096									
23.000															
24.000			.1285												
31.500			.1434												
34.000															
35.000			.1407				.1239								
40.000			.1313				.1194								
45.000							.1142								
51.000			.0454												
57.500							.0094					.0024			
59.500							.0190								
61.000							.0204								
65.000							.0220								
70.000															
96.500			.0221											.0186	
105.000															
106.000							.0161								
135.000							.0020								
140.000			.0042												
141.400	.0049														
151.000		.0108													
180.000					.0035	.0021						.0033			
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8290

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 O1 CRB. FUSELAGE

(ATK823)

MACH (1) = 8.000 ALPHA (3) = 35.000

SECTION (1) CRBITTER FUSELAGE

DEPENDENT VARIABLE MU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250
PHI														
.000	.0787	.0772	.0783	.0791	.0773	.0764	.0761	.0719	.0680	.0682	.0668	.0615	.0587	.0527
21.500	.0856				.0704				.0727				.0558	
35.000	.0007													
64.000								.0006						
65.000														
65.500					.0010								.0004	
105.000					.0073									
111.000	.0213							.0036						
112.000					.0119									.0009
113.000					.0136									
116.000														
135.000	.0030				.0035			.0020			.0027			
149.000														
180.000	.0031				.0040			.0049			.0029			
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0150	1.0140	1.0250	1.0360	1.0500		
PHI														
.000	.0504	.0479	.0419	.0299	.0120	.2180	.0305	.0493		.1012	.1769	.2313		
21.500			.0457											
39.000														
52.500							.0489							
55.000			.0012			.0027								.2180
65.000			.0011											
66.000														
100.000			.0012			.0018								
106.000			.0008			.0046								
112.000							.0064							
113.000									.0060					

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TABULATED DATA LISTING FOR QH48 (AEDC YA352)

PAGE 143

AEDC VA352 CH48 01 CRB. FUSELAGE

(ATKB24)

MACH (1) = 8.0000 ALPHA (1) = 25.0000

SECTION (1) ORBITER FUSELAGE

[illegible]

(ATK824)

AEDC VA352 OH48 01 ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (1) = 25.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
PHI												
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
21.500	.0000											
39.000							.0385					.2260
52.500						.0034						
55.000			.0029									
65.000			.0046									
68.000						.0044						
100.000			.0075									
108.000			.0090			.0057						
112.000							.0067					
113.000								.0072				

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 93.233 QI = .523 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
PHI														
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
10.000														.1518
14.000														.1609
20.000								.2631						.1797
22.000								.2511						.1023
24.500								.1338						
35.000								.0990						
39.000								.0456						
42.500									.0722					
48.000														
60.000														.0210
119.000		.0139	.0513		.0222					.0129				.0094
180.000														

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1700	.1780	.1800	.1810	.1820
PHI														
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
10.000						.1346								
20.000						.1310								
25.500						.1466								
40.000						.1214								
45.500						.0871								
131.200							.0000							
145.400								.0000						
146.200									.0000					.0000

(ATK 24)

AEDC VA352 CH4B 01 CRB. FUSELAGE

MACH (1) = 6.000 ALPHA (2) = 30.000

SECTION (1) CRIBBYER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PH															
105.000	.0409				.0528				.0175				.0064		
111.000					.0639										.0083
112.000					.0611										
113.000															
116.000															
135.000	.0032				.0046				.0083		.0210				
149.000															
180.000	.0045				.0047				.0047		.0043			.0028	

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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(ATKB24)

AEDC VA352 CH4B 01 CRB. FUSELAGE

$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (3) = 35.000$$

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI															
.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000				.0000				
10.000					.1405										
20.000					.1410										
25.500					.1692										
40.000					.1285										
45.500					.0885										
131.200									.0000						
145.400															
146.200								.0000							
156.000															
159.200															
170.700															
171.900															
173.400															
180.000															
X/L	.1850	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI					.0051	.0000	.0106			.0000	.0878		.0125		
.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
11.500				.1179											
12.000								.1044				.0000			
21.500								.0000							
23.000															
24.000				.0000											
31.500				.1597											
34.000															
35.000				.1604			.1387								
40.000				.1591			.1360								
45.000							.1368								
51.000				.0661											
57.500							.0175								
59.500															
61.000							.0361					.0048			
65.000							.0396								
70.000							.0371								
96.500				.0319											
105.000															
106.000							.0230					.0237			
135.000							.0030								
140.000				.0000								.0021			
141.400															
151.000			.0000												
160.000				.0079		.0099	.0030					.0023			
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500

(ATKB24)

AEDC VA352 CH42 01 CR8. FUSELAGE

MACH (1) = 8.000 ALPHA (3) = 35.000

SECTION (1) CRITTER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
21.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
63.000	.0015														
64.000															
65.000															
65.500															
105.000	.0563				.0017										
111.000					.0237				.0112				.0051		.0061
112.000					.0367										
113.000					.0458										
116.000											.0166				
135.000	.0036				.0061			.0066							
149.000											.0045				
180.000	.0028				.0032			.0041					.0056		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000			
21.500			.0000												
39.000															
52.500							.0815							.2912	
55.000			.0032			.0028									
65.000			.0024												
68.000															
100.000			.0032			.0029									
108.000			.0054												
112.000						.0047	.0037								
113.000									.0041						

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TABULATED DATA LISTING FOR CH4B (AEDC VA352)

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AEDC VA352 CH4B 01 CRB, FUSELAGE

(ATK025) (27 APR 74)

REFERENCE DATA

SREF	=	.8236 SQ.FT.	YGRP	=	.0000 IN.
LREF	=	22.5803 IN.	YMRP	=	.0000 IN.
BREF	=	16.3919 IN.	ZMRP	=	.0000 IN.
SCALE	=	.0175 SCALE			

PARAMETRIC DATA

BETA = .000 RN/L = 2.000
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

WACH (1) = 0.000 ALPHA (1) = 30.000 TI = 94.650 QI = 1.985 HREF = .035

SECTION (1) CRIBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0780	.0800	.0900	.1000
PHI															
.0000	.0000	.6076	.5128	.3356		.2736	.2334	.2005	.1681	.0000			.1431	.1406	.1229
10.000															.1406
14.000								.2445							.1447
20.000								.2300							.1555
24.500								.1030							.0680
35.000															
39.000															
42.500								.0754							
46.000												.0536			
60.000								.0318							
119.000															
180.000															
			.0607		.0420			.0181			.0099				.0146
															.0081
X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820

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.000	.1168	.1071	.1033	.0959	.0952		.0931	.0923
10,000				.1166				
20,000				.1128				
25,500				.1286				
40,000				.0929				
45,500				.0582				
131,200						.0053		
145,400								
146,200					.0068			.0081
156,000								
159,200								.0142
170,700								
171,900								
173,400							.0073	.0207
180,000							.0169	
	.0074			.0331				

✕

[illegible]

III

[illegible]

AEDC VA392 CH48 01 ORB. FUSELAGE (ATK925)

MACH (1) = 9.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE MU/HO

X/L .1830 .1900 .1910 .2000 .2250 .2500 .2750 .3000 .3250 .3500 .3750 .4000 .4250 .4500 .4750

PHI

12.000								.0619						
21.500								.0922				.0762		
23.000														
24.000			.1096											
31.500			.1257											
34.000								.1034						
35.000			.1216					.0950						
40.000			.1167					.0937						
45.000														
51.000			.0388					.0108						
57.500								.0215				.0026		
59.500								.0230						
61.000								.0208						
65.000								.0159				.0112		
70.000								.0018				.0010		
96.500			.0214											
105.000														
106.000														
135.000			.0051											
140.000														
141.400	.0055													
151.000		.0174												
160.000														

X/L

PHI

.000	.0636	.0632	.0634	.0637	.0638	.0628	.0639	.0629	.0604	.0613	.0642	.0620	.0689	.0707
21.500	.0664				.0547				.0614				.0633	
63.000	.0007								.0006					
64.000														
65.000					.0009								.0004	
65.500					.0218								.0018	
105.000	.0327				.0393									
111.000					.0437									
112.000														
113.000														
116.000					.0026						.0100			
135.000	.0017				.0063				.0046		.0051			
149.000														
160.000	.0077								.0052				.0020	

X/L .6900 .8750 .9000 .9250 .9500 .9750 1.0000 1.0130 1.0140 1.0250 1.0380 1.0500

PHI

.0025

AEDC VA392 CH48 01 CR8. FUSELAGE (ATR825)

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.6500	.6750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0360	1.0500
PHI												
.000	.0792	.0741	.0729	.0760	.0706	.3793	.1819	.2998		.3656	.3863	.3838
21.500			.0796									
39.000												
52.500						.0035	.2768					.3793
55.000												
65.000						.0016						
66.000												
100.000						.0020						
108.000						.0025						
112.000						.0019						
113.000						.0021	.0018					
							.0023					

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.650 QI = 1.985 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
.000	.0000	.6043	.5276	.3566		.3100	.2632	.2301	.1930	.0000		.1626	.1564	.1442	.1404
10.000														.1664	.1716
14.000									.2687					.0746	
20.000															
22.000															
24.500									.2529						
35.000									.0985						
39.000															
42.500									.0723						
48.000															
60.000									.0257			.0503			
119.000															
160.000															
X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1760	.1800	.1810	.1820
PHI															
.000	.1395	.1284	.1219	.1118	.1471	.1294	.1463	.0987	.0601						
10.000															
20.000															
25.500															
40.000															
45.500															
131.200															
145.400															
146.200															
									.0052						.0080
									.0110						

(ATK825)

AEDC VA332 CH48 01 ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .1200 .1250 .1300 .1400 .1500 .1550 .1600 .1620 .1670 .1690 .1700 .1750 .1800 .1810 .1820

PHI

156.000
159.200
170.700
171.900
173.400
180.000

.0108

.0163

.0062

.0199

.0646

.0818

.0062

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TABULATED DATA LISTING FOR CH48 (AEDC VA392)

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AEDC VA392 CH48 01 CRB. FUSELAGE

(ATK825)

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0325				.0116				.0047				.0010		.0006
111.000															
112.000					.0210										
113.000					.0238										
116.000															
135.000	.0017				.0026				.0048		.0039				
149.000											.0066				
180.000	.0014				.0015				.0018				.0031		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.1077	.1063	.1061	.1107	.1059	.3715	.2367	.3834		.4287	.4161	.4001			
21.500			.1074												
39.000															
52.500															
55.000			.0014			.0045									
65.000			.0014												
68.000															
100.000			.0005			.0029									
108.000			.0006												
112.000						.0030									
113.000							.0028								
								.0036							

AEDC VA352 CH4B Q1 ORB, FUSELAGE (ATKRB26)

MACH (1) = 0.000 ALPHA (1) = 30.000

SECTION (1) CRITTER FUSELAGE

[illegible]

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.450 QI = 1.983 HREF = .035

SECTION (1) CRITTER FUSELAGE

[illegible][illegible]

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA392)

PAGE 187

AEDC VA392 CH48 01 CRB. FUSELAGE (ATK826)

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI															
156.000														.0000	.0000
159.200														.0000	.0000
170.700														.0000	.0000
171.900														.0000	.0000
173.400														.0000	.0000
180.000		.0082			.0092	.0000	.0189			.0843			.0136		
X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
11.500				.1174											
12.000								.1022							
21.500								.0000				.0000			
23.000															
24.000				.0000											
31.500				.1601											
34.000								.1330							
35.000				.1596				.1323							
40.000				.1615				.1301							
45.000															
51.000				.0634											
57.900								.0183							
59.500									.0049						
61.000								.0420							
65.000								.0441							
70.000								.0356							
96.900				.0311											
105.000															
106.000								.0222				.0197			
135.000								.0021				.0016			
140.000				.0000											
141.400	.0000														
151.000		.0000													
160.000			.0000	.0079	.0082	.0046									
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
21.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
63.000	.0015														
64.000															
65.000															
65.500					.0025				.0015					.0021	

(ATK826)

AEDC VA352 CH48 01 ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HQ

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0369			.0766				.0205					.0086		.0121
111.000					.0696										
112.000					.0571						.0461				
113.000									.0055		.0074				
116.000					.0037				.0031				.0030		
135.000	.0022														
149.000					.0024										
180.000	.0024														
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000			
21.500	.0000														
39.000															
52.500						.0067								.4131	
55.000	.0035														
65.000	.0039														
68.000						.0095									
100.000	.0059														
108.000	.0105					.0052									
112.000							.0045								
113.000								.0056							

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA392)

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AEDC VA392 CH48 Q1 ORB. FUSELAGE

(ATK827) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .0000 RN/L = 3.720
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.567 QI = 3.936 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.0000	.0090	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI	.0000	.6188	.5033	.3088	.2513	.2099	.1780	.1458	.0000	.1214	.1133	.1043	.1167	.1253	.1388
PHI	.0000	.0575	.0907	.0842	.0762	.0944	.0952	.1100	.0851	.0582	.0754	.0740	.0713	.0187	.0095
X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI	.1243	.0907	.0842	.0762	.0944	.0952	.1100	.0851	.0582	.0754	.0740	.0713	.0187	.0095	.0187
PHI	.0000	.0057	.0102	.0233	.0335	.0335	.0335	.0335	.0335	.0335	.0335	.0335	.0335	.0335	.0335
X/L	.1830	.1900	.1910	.2000	.2250	.2900	.2750	.3000	.3250	.3900	.3750	.4000	.4250	.4500	.4750
PHI	.0714	.0653	.0000	.0568	.0598	.0561	.0630	.0615	.0594	.0602	.0580	.0547	.0515	.0414	.0315

(ATRB27)

AEDC VA352 CH48 01 ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (1) = 25.000

SECTION 11 ORBITER FUSELAGE DEPENDENT VARIABLE MU/HO

X/L .1830 .1900 .1910 .2000 .2250 .2500 .2750 .3000 .3250 .3500 .3750 .4000 .4250 .4500 .4750

PHI

12.000

.0648

.0638

21.500

.0749

23.000

.0911

24.000

.1046

31.500

.0841

34.000

.1035

35.000

.1053

40.000

.0816

45.000

.0802

51.000

.0418

57.500

.0143

59.500

.0299

61.500

.0262

65.000

.0169

70.000

.0217

96.500

.0137

105.000

.0140

106.000

.0023

135.000

.0141

140.000

.0092

141.400

.0351

151.000

.0112

160.000

.0027

PHI

.0000

.0504

21.500

.0498

63.000

.0519

64.000

.0476

65.000

.0021

65.500

.0494

105.000

.0220

111.000

.0276

112.000

.0247

113.000

.0060

116.000

.0069

135.000

.0030

149.000

.0096

160.000

.0059

X/L

.8500

.9000

.9250

.9500

.9750

1.0000

1.0130

1.0140

1.0250

1.0380

1.0500

PHI

.0000

.0504

21.500

.0498

63.000

.0519

64.000

.0476

65.000

.0021

65.500

.0494

105.000

.0220

111.000

.0276

112.000

.0247

113.000

.0060

116.000

.0069

135.000

.0030

149.000

.0096

160.000

.0059

X/L

.8500

.9000

.9250

.9500

.9750

1.0000

1.0130

1.0140

1.0250

1.0380

1.0500

AEBC VA352 CH4B 01 CRB. FUSELAGE (ATK827)

$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (1) = 25.000$$

SECTION (1) ORBITER FUSELAGE	DEPENDENT VARIABLE HU/HO
1	1
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1
11	1
12	1
13	1
14	1
15	1
16	1
17	1
18	1
19	1
20	1
21	1
22	1
23	1
24	1
25	1
26	1
27	1
28	1
29	1
30	1
31	1
32	1
33	1
34	1
35	1
36	1
37	1
38	1
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41	1
42	1
43	1
44	1
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70	1
71	1
72	1
73	1
74	1
75	1
76	1
77	1
78	1
79	1
80	1
81	1
82	1
83	1
84	1
85	1
86	1
87	1
88	1
89	1
90	1
91	1
92	1
93	1
94	1
95	1
96	1
97	1
98	1
99	1
100	1

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
PHI												
.000	.1067	.1109	.1108	.1146	.1068	.4055	.2115	.5256				
21.500			.1109									
39.000												
52.500												
55.000			.0039									
65.000			.0044				.2702			.3707	.3776	.3886
68.000						.0053						.4055
100.000												
100.000			.0050			.0078						
108.000			.0055									
112.000												
113.000							.0032					.0041

$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (2) = 30.000 \quad \text{TI} = 97.367 \quad \text{OI} = 3.936 \quad \text{REF} = .049$$

SECTION (1) CREYER FUSELAGE

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
.000	.0000	.6149	.5197	.3261		.2799	.2369	.2053	.1702	.0000			.1449	.1357	.1243
10.000	.0000														.1398
14.000								.2500							.1477
20.000								.2334							.1573
22.000															
24.500								.1055							.0789
35.000															
39.000								.0765							
42.500												.0530			
48.000								.0326							
60.000															
119.000															
180.000															
X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1650	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI			.0786		.0407			.0178			.0092				.0142
.000	.1198			.1033	.0936		.0967						.0938		.0090
10.000			.1116		.1280										
20.000					.1153										
25.500					.1295										
40.000					.0940										
45.500					.0600										
131.200															
145.400															
146.200									.0055						.0101
								.0083							

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 163

AEDC VA352 CH48 01 CRB. FUSELAGE

(ATK827)

MACH (1) = 8.000 ALPHA (2) = 30.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.9000	.9250	.9500	.9750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0235				.0474				.0098				.0043		
111.000															
112.000					.0413										
113.000					.0342										.0033
116.000															
135.000	.0022				.0045				.0057		.0202				
149.000											.0034				
180.000	.0077				.0052				.0048						.0037

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
PHI												
.000	.2403	.2239	.2104	.2038	.1789	.4138	.2725	.4120		.4331	.4342	.4315
21.500			.2116									
39.000						.2924						.4138
92.500					.0046							
55.000			.0026									
65.000			.0028									
68.000					.0036							
100.000			.0036									
108.000			.0042									
112.000					.0043							
113.000					.0030				.0037			

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.0050	.0090	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
.000	.0000	.6120	.5350	.3657		.3043	.2620	.2321	.1964	.0000		.1650	.1577	.1445	.1638
10.000															
14.000															
20.000															
22.000															
24.500															.1703
35.000															.1744
39.000															.0753
42.500															
46.000															
60.000															
119.000			.0942		.0302						.0089				.0103
180.000															.0127

X/L

{ATK927}

AEDC VA352 CH4B 01 CRB. FUSELAGE

$$\text{MACH} (1) = 8,000 \quad \text{ALPHA} (5) = 35,000$$

SECTION (1) ORBITER FUSELAGE

X/L	.1200	.1250	.1300	.1400	.1500	.1550	.1600	.1620	.1670	.1690	.1700	.1750	.1800	.1810	.1820
PHI	.1419	.1297	.1229	.1143	.1158						.1142	.1123			
.000				.1408											
10.000				.1349											
20.000				.1508											
25.000				.0998											
40.000				.0597											
45.000									.0060						
131.200															
145.400														.0102	
146.200								.0133							
156.000														.0155	.0219
159.200															
170.700															
171.900										.0217					
173.400						.0624									
180.000		.0179		.0316	.0746						.0812	.0686			
X/L	.1890	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI	.1195	.1057	.1000	.0921	.0975	.0884	.0988	.0935	.0967	.0974	.0974	.0948	.0937		
.000		.1112													
11.900								.1010							
12.000								.1090				.0940			
21.900															
23.000				.1301											
24.000				.1441											
31.900								.1229							
34.000				.1393				.1131							
35.000				.1308				.1102							
40.000															
43.000				.0426				.0096				.0019			
51.000								.0222							
57.900								.0232							
59.500								.0225							
61.000															
65.000															
70.000															
96.900				.0219											
103.000								.0199				.0187			
106.000								.0010							
135.000				.0064								.0007			
140.000															
141.400															
151.000	.0091	.0157													
160.000				.0146	.0022			.0015				.0023			
X/L	.9000	.9250	.9500	.9750	.9000	.9250	.9500	.9750	.7000	.7250	.7500	.7750	.8000	.8250	.8500

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TABULATED DATA LISTING FOR CH48 (AEDC VA392)

PAGE 185

AEDC VA392 CH48 01 CRB. FUSELAGE (ATRB27)

MACH (1) = 8.000 ALPHA (3) = 35.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.000	.1005	.1090	.1199	.1405	.1664	.2008	.2205	.2440	.2629	.2814	.2936	.2861	.3151	.3165	
21.500	.1008				.1501				.2687				.2992		
39.000	.0004														
55.000									.0013						
65.000													.0009		
82.500	.0282				.0008				.0065				.0016		.0012
105.000					.0225										
111.000															
112.000					.0372						.0062				
113.000					.0351						.0062				
116.000									.0064						
135.000	.0016				.0032										
149.000									.0045						
180.000	.0024				.0031								.0057		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.2937	.2655	.2499	.2385	.2120	.4056	.2993	.4521		.4564	.4482	.4397			
21.500			.2507												
39.000						.0046	.3021						.4056		
55.000			.0026												
65.000			.0026												
82.500						.0026									
100.000			.0025												
108.000			.0018			.0028									
112.000						.0030									
113.000									.0041						

(ATK828) (27 APR 74)

AEDC VA332 CH48 01 ORB. FUSELAGE

REFERENCE DATA

SRFP = .8238 SQ.FT. YMRP = .0000 IN.
 LRFP = 22.5803 IN. YMRP = .0000 IN.
 DRFP = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 5.000 ALPHA (1) = 25.000 T1 = 97.500 Q1 = 3.930 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
PHI	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
10.000														
14.000														
20.000														
22.000														
24.500														
35.000														
39.000														
42.500														
48.000														
60.000														
119.000														
190.000														

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
10.000															
20.000															
25.500															
40.000															
45.500															
131.200															
145.400															
146.200															
156.000															
159.200															
170.700															
171.900															
173.400															
180.000															

X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
11.500															



AEDC VA352 CH4B 01 CRB, FUSELAGE

(ATK228)

$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (1) = 25.000$$

SECTION (1) CRIBTER FUSELAGE

DEPENDENT VARIABLE HU/HQ

X/L	.1850	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
12.000								.0767				.0000			
21.500								.0000							
23.000															
24.000				.0000											
31.500				.1189											
34.000								.1039							
35.000				.1253											
40.000				.1361				.1072							
45.000								.1108							
51.000				.0636											
57.500								.0535				.0174			
59.500								.0554							
61.000								.0382							
65.000								.0299							
70.000															
96.500				.0315											
105.000												.0197			
106.000								.0206							
135.000				.0000				.0035				.0015			
140.000															
141.400	.0000														
151.000			.0000												
180.000				.0118		.0055		.0017				.0099			
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.0000				.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	
21.500															
63.000					.0000				.0000	.0000			.0000	.0000	
64.000															
65.000									.0062						
65.500													.0032		
105.000	.0262				.0078										
111.000					.0370				.0365				.0326		.0645
112.000															
113.000					.0342										
116.000					.0341										
135.000	.0021				.0026						.0399				
149.000									.0028						
180.000	.0058				.0027				.0014		.0049				
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			

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TABULATED DATA LISTING FOR CH4B (AEDC VA352)

PAGE 169

(ATK828)

AEDC VA352 CH4B 01 CRB, FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 30.000

SECTION (1) CRBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

[illegible]

AEDC VA352 CH48 O1 ORB. FUSELAGE (ATK828)

MACH (1) = 8.000 ALPHA (2) = 30.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0283				.0454			.0797					.0287		.0381
111.000					.0376										
112.000					.0341										
113.000															
116.000											.0487				
135.000	.0028				.0033			.0044			.0115				
149.000															
180.000	.0069				.0036			.0028					.0048		

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
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PHI												
.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
21.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
39.000						.0079	.3719					.4853
52.500			.0082									
55.000		.0127										
65.000						.0121						
68.000												
100.000		.0193				.0163	.0068					
108.000		.0210										
112.000												
113.000								.0071				

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.300 Q1 = 3.930 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
10.000															.1693
14.000									.2891						.1837
20.000									.2755						.1991
22.000															
24.500									.1275						.1008
35.000									.0956						
39.000															
42.500												.0685			
48.000									.0319						
60.000									.0116						.0132
119.000		.0228			.0305					.0075					.0083
180.000															.1820

X/L	.1200	.1250	.1300	.1400	.1500	.1580	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 171

AEDC VA352 CH48 01 CRB. FUSELAGE (ATK828)

MACH (1) = 8.000 ALPHA (3) = 35.000

SECTION (1) CRBITTER FUSELAGE DEPENDENT VARIABLE MU/HO

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
10.000					.0000	.1715									
20.000					.1447										
25.500					.1676										
40.000					.1268										
45.500					.0849										
131.200									.0000						
145.400														.0000	
146.200								.0000							
156.000														.0000	
199.200														.0000	
170.700														.0000	
171.900														.0000	
173.400														.0000	
180.000														.0000	
X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI	.0000	.0106	.0000	.0000	.0139	.0000	.0233			.0000	.0822		.0236		
11.500			.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
12.000			.1165												
21.500							.1053					.0000			
23.000				.0000			.0000								
24.000				.1618											
31.500				.1610			.1370								
34.000				.1635			.1336								
35.000				.0633			.1298								
40.000							.0194								
45.000							.0429								
51.000							.0441								
57.500							.0355								
59.500												.0043			
61.000															
65.000															
70.000															
96.500				.0306											
105.000															
106.000												.0210			
135.000												.0012			
140.000				.0000											
141.400	.0000														
151.000		.0000													
180.000				.0109		.0106	.0036					.0026			
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8290

AEDC VA352 CH4B 01 CTS. FUSELAGE (ATK926)

MACH (1) = 8.000 ALPHA (3) = 35.000

SECTION (1) CRIBBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.9000	.9250	.9500	.9750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
21.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
63.000	.0018														
64.000									.0023						
65.000													.0021		
65.500					.0032				.0630				.0163		.0290
105.000	.0324				.0668										
111.000					.0441										
113.000					.0407										
116.000									.0037		.0723				
135.000	.0023				.0043						.0066				
149.000									.0050				.0045		
180.000	.0033				.0036										
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000			
21.500	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000			
39.000													.4676		
52.500			.0101				.0072	.3689							
55.000			.0099												
65.000															
66.000						.0107									
100.000			.0097												
108.000			.0114												
112.000						.0095		.0067							
113.000								.0081							

AEDC VA352 CH4B 02 CRB. FUSELAGE

(ATK829) (27 APR 74)

REFERENCE DATA

SREF =	.8238 SQ.FT.	YMRP =	.0000 IN.
LREF =	22.9803 IN.	YMRP =	.0000 IN.
DREF =	16.3919 IN.	ZMRP =	.0000 IN.
SCALE =	.0175 SCALE		

MACH (1) =	8.000	ALPHA (1) =	25.000	TI	=	97.067	QI	=	3.940	HREF	=	.049
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SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

[illegible]

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[illegible]

x

X/L
.1200 .1250 .1300 .1400 .1500 .1600 .1700 .1800 .1900 .1920

三

.000	.0914	.0850	.0774	.0721	.0732	.0714	.0716
10,000				.0000			
20,000				.0000			
25,500				.0000			
40,000				.0000			
45,500				.0000			

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X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
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III

[illegible]

(ATK829)

AEDC VA352 CH4B CR CRB. FUSELAGE

MACH (1) = 8.000 ALPHA (1) = 25.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .1830 .1900 .1910 .2000 .2250 .2500 .2750 .3000 .3250 .3500 .3750 .4000 .4250 .4500 .4750

PHI

12.000

21.500

23.000

24.000

31.500

34.000

35.000

40.000

45.000

51.000

57.500

59.500

61.000

65.000

70.000

96.500

105.000

106.000

135.000

140.000

141.400

151.000

160.000

X/L

.5000

.5250

.5500

.5750

.6000

.6250

.6500

.6750

.7000

.7250

.7500

.7750

.8000

.8250

.8500

.8750

.9000

.9250

.9500

.9750

1.0000

1.0130

1.0140

1.0250

1.0360

1.0500

PHI

.0000

.0503

.0569

.0600

.0600

.0600

.0600

.0600

.0600

.0600

.0600

.0600

.0600

.0600

.0600

.0600

.0600

.0600

.0600

.0600

.0600

.0600

.0600

X/L

.8500

.8750

.9000

.9250

.9500

.9750

1.0000

1.0130

1.0140

1.0250

1.0360

1.0500

AEDC VA352 CH4B C2 ORB. FUSELAGE
(ATK829)

MACH (1) = 8.000 ALPHA (1) = 25.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
PHI												
.000	.1041	.1103	.1133	.1166	.1054	.1107	.1134	.0000	.0000	.0000	.0000	.1081
21.500			.1153									
39.000							.0000					.0000
52.500			.0000			.0000						
65.000			.0000									
68.000					.0000							
100.000			.0000									
106.000			.0000									
112.000					.0000							
113.000							.0000					

MACH (1) = 8.000 ALPHA (2) = 30.000 T1 = 97.067 Q1 = 3.940 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
PHI														
.000	.5809	.6158	.5131	.3434		.2760	.2380	.2057	.1708	.1532		.1405	.1337	.1228
10.000														.0000
14.000								.0000						.0000
20.000								.0000						.0000
22.000								.0000						.0000
24.500								.0000						.0000
35.000								.0000						.0000
39.000								.0000						.0000
42.500								.0000						.0000
48.000								.0000			.0000			
60.000								.0000			.0000			.0000
119.000			.0000		.0000		.0000	.0000			.0000			
180.000				.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
X/L	.1200	.1250	.1300	.1400	.1500	.1580	.1600	.1620	.1670	.1690	.1700	.1780	.1810	.1820
PHI														
.000	.1171		.1094	.1022	.0931		.0927				.0918		.0901	
10.000					.0000									
20.000					.0000									
25.500					.0000									
40.000					.0000									
45.500					.0000									
131.200					.0000									
145.400									.0000					.0000
146.200								.0000						

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TABULATED DATA LISTING FOR CH4B (AEDC VA392)

PAGE 177

AEDC VA392 CH4B C2 CR8, FUSELAGE (ATR829)

MACH (1) = 8.000 ALPHA (2) = 30.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0000				.0000				.0000				.0000		.0000
111.000					.0000										.0000
112.000					.0000										.0000
113.000					.0000										.0000
116.000					.0000				.0000		.0000				.0000
135.000	.0000				.0000			.0000		.0000					.0000
149.000					.0000			.0000		.0000		.0000			.0000
180.000	.0000				.0000			.0000		.0000			.0000		.0000

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
-----	-------	-------	-------	-------	-------	-------	--------	--------	--------	--------	--------	--------

PHI

.000	.2341	.2234	.2117	.2005	.1709	.1740	.1696	.0000	.0000	.0000	.0000	.1547
21.500			.2144									.0000
39.000							.0000					.0000
52.500						.0000						.0000
55.000			.0000									.0000
65.000			.0000									.0000
68.000			.0000			.0000						.0000
100.000			.0000			.0000						.0000
108.000			.0000			.0000						.0000
112.000			.0000			.0000						.0000
113.000						.0000			.0000			.0000

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.067 QI = 3.940 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
PHI														
.000	.3258	.6048	.5090	.3593		.3020	.2640	.2292	.1939	.1766		.1619	.1552	.1413
10.000														.0000
14.000								.0000						.0000
20.000								.0000						.0000
22.000								.0000						.0000
24.500								.0000						.0000
35.000								.0000						.0000
39.000								.0000						.0000
42.500								.0000						.0000
48.000								.0000				.0000		.0000
60.000								.0000						.0000
119.000			.0000			.0000		.0000		.0000				.0000
180.000		.1200	.1250	.1300	.1400	.1500	.1600	.1700	.1800	.1900	.2000	.2100	.2200	.2300

(ATK829)

AEDC VA352 CH4B 02 CRB. FUSELAGE

MACH (1) = 6.000 ALPHA (3) = 35.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI															
.000	.1389	.1291	.1214	.1125	.1130						.1126		.1111		
10.000				.0000											
20.000				.0000											
25.500				.0000											
40.000				.0000											
45.500				.0000											
131.200					.0000										
145.400								.0000						.0000	
146.200								.0000						.0000	
156.000															
159.200															
170.700										.0000		.0000			.0000
171.900															
173.400															
180.000															
X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
.000	.1127		.1025	.0000	.0936	.0946	.0862	.0960	.1027	.0939	.0930	.0929	.0905	.0903	
11.500			.0000												
12.000								.0000							
21.500								.1060				.0936			
23.000															
24.000			.1265												
31.500			.1429												
34.000								.0000							
35.000			.1385												
40.000			.1266					.1137							
45.000								.1088							
51.000			.0000												
57.500								.0000							
59.500											.0000				
61.000								.0000							
65.000								.0000							
70.000															
96.500			.0000												
105.000															
106.000								.0000				.0000			
135.000								.0000				.0000			
140.000			.0000												
141.400	.0000														
151.000		.0000		.0000		.0000		.0000							
180.000															
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 02 ORB. FUSELAGE

(ATRB29)

MACH (1) = 8.000 ALPHA (3) = 35.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.000	.0952	.1014	.1149	.1268	.1388	.1473	.2082	.2332	.2463	.2678	.2833	.2779	.3066	.3126	
21.500	.0940				.1380				.2563				.2974		
63.000	.0000														
64.000									.0000						
65.000													.0000		
65.500					.0000										
105.000	.0000				.0000				.0000				.0000		
111.000															.0000
112.000					.0000										
113.000					.0000										
116.000										.0000					
135.000	.0000				.0000				.0000						
149.000										.0000					
160.000	.0000				.0000				.0000				.0000		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.2685	.2634	.2461	.2391	.2041	.2032	.2009	.0000		.0860	.0000	.1836			
21.500			.2489												
39.000															
52.500						.0000	.0000					.0000			
55.000			.0000												
65.000			.0000												
68.000					.0000										
100.000	.0000														
108.000	.0000				.0000										
112.000						.0000									
113.000							.0000		.0000						

AEDC VA352 CH48 C2 CRB. FUSELAGE

(ATK050) (27 APR 74)

REFERENCE DATA

9REF = .8238 SQ. FT. XGRP = .0000 IN.
 LREF = 22.5803 IN. YGRP = .0000 IN.
 0REF = 16.3919 IN. ZGRP = .0000 IN.
 SCALE = .0175 SCALE

BETA = .000 RM/L = 2,000
B.FLAP = .000 ELEVON = .000
HAM/HT = .900

WACH (1) =	8.000	ALPHA (1) =	25.000	TI =	94.933	QI =	1.986	WREF =	.035
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SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
10.000	.6164	.6043	.4893	.3037		.2427	.2069	.1748	.1452	.1311			.1175	.1147	.1042
14.000								.0000							.0000
20.000								.0000							.0000
22.000								.0000							.0000
24.500								.0000							.0000
39.000								.0000							.0000
42.500								.0000				.0000			.0000
48.000								.0000							.0000
60.000								.0000							.0000
119.000					.0000										.0000
180.000			.0000								.0000				.0000

[illegible]

PHI	.0930	.0681	.0807	.0744	.0752	.0690
.000				.0000		
10.000				.0000		
20.000				.0000		
25.500				.0000		
40.000				.0000		
45.500				.0000		

[illegible][illegible]

(ATKBSQ)

AEDC VA352 CH4B 02 CRB. FUSELAGE

$$\text{MACH} (1) = 0.000 \quad \text{ALPHA} (1) = 25.000$$

SECTION (1) ORBITER FUSELAGE

[illegible]

(ATK830)

AEDC VA352 CH4B 02 ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (1) = 25.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .8500 .8750 .9000 .9250 .9500 .9750 1.0000 1.0130 1.0140 1.0250 1.0380 1.0500

PHI

.000	.0315	.0325	.0286	.0274	.0258	.0262	.0250	.0000	.0258	.0000	.0248
21.500		.0342					.0000				.0000
39.000						.0000					
52.500						.0000					
55.000						.0000					
65.000						.0000					
68.000						.0000					
100.000						.0000					
106.000						.0000					
112.000						.0000					
113.000						.0000					

MACH (1) = 8.000 ALPHA (2) = 30.000 $T_i = 94.933$ $Q_i = 1.985$ HREF = .035

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
PHI	.000	.5679	.6063	.5191	.3358	.2748	.2354	.2053	.1690	.1553	.1427	.1347	.1240	.0000
10.000								.0000					.0000	.0000
14.000								.0000					.0000	.0000
20.000								.0000					.0000	.0000
24.500								.0000					.0000	.0000
35.000								.0000					.0000	.0000
39.000								.0000					.0000	.0000
42.500								.0000					.0000	.0000
48.000								.0000					.0000	.0000
60.000								.0000					.0000	.0000
119.000								.0000					.0000	.0000
180.000								.0000					.0000	.0000

X/L .1200 .1250 .1300 .1400 .1500 .1560 .1600 .1620 .1670 .1690 .1700 .1780 .1810 .1820

PHI

.000	.1188	.1091	.1038	.0929	.0927	.0902	.0903
10.000				.0000			
20.000				.0000			
25.500				.0000			
40.000				.0000			
45.500				.0000			
131.200				.0000			
145.400				.0000			
146.200				.0000			.0000

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TABULATED DATA LISTING FOR CH48 (AEDC VA392)

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AEDC VA392 CH48 02 CRB. FUSELAGE (ATK830)

MACH (1) = 8.000 ALPHA (2) = 30.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.1200	.1250	.1300	.1350	.1400	.1500	.1560	.1600	.1620	.1670	.1700	.1780	.1800	.1810	.1820
PHI															
156.000														.0000	.0000
159.200														.0000	.0000
170.700														.0000	.0000
171.900														.0000	.0000
173.400														.0000	.0000
180.000														.0000	.0000
X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
.000		.0904		.0850	.0000	.0759	.0758	.0707	.0784	.0837	.0751	.0746	.0708	.0676	.0635
11.500				.0000											
12.000															
21.500															
23.000															
24.000				.1029											
31.500				.1194											
34.000															
35.000				.1145											
40.000				.1137											
45.000															
51.000				.0000											
57.500															
59.500															
61.000															
65.000															
70.000															
96.500				.0000											
105.000															
106.000															
135.000															
140.000				.0000											
141.400															
151.000				.0000											
180.000															
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8290
PHI															
.000		.0613	.0448	.0609	.0637	.0629	.0603	.0624	.0598	.0566	.0613	.0582	.0630	.0640	
21.500		.0671				.0553				.0621			.0538		
63.000		.0000													
64.000															
65.000															
65.500					.0000				.0000				.0000		

(ATK830)

AEDC VA352 CH4B 02 CR8. FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 30.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/H0

X/L	.5000	.5250	.5500	.5750	.5000	.6250	.6500	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI														
105.000	.0000				.0000			.0000				.0000		.0000
111.000					.0000									
112.000					.0000									
113.000					.0000									
116.000					.0000			.0000		.0000				
135.000	.0000				.0000			.0000		.0000				
149.000					.0000			.0000		.0000				
180.000	.0000				.0000			.0000				.0000		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500		
PHI														
.000	.0670	.0699	.0690	.0716	.0654	.0698	.0735	.0000	.0754	.0000	.0779			
21.900		.0664					.0000				.0000			
39.000						.0000								
52.900						.0000								
55.000			.0000											
65.000			.0000			.0000								
68.000						.0000								
100.000	.0000					.0000								
108.000	.0000					.0000								
112.000						.0000								
113.000						.0000								

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 94.933 QI = 1.986 HREF = .035

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/H0

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
PHI														
.000	.5179	.5982	.5242	.3814		.2978	.2594	.2264	.1921	.1747		.1626	.1543	.1444
10.000								.0000						.0000
14.000								.0000						.0000
20.000								.0000						.0000
22.000								.0000						.0000
24.500								.0000						.0000
33.000								.0000						.0000
39.000								.0000						.0000
42.900								.0000						.0000
48.000								.0000						.0000
60.000								.0000						.0000
119.000			.0000		.0000			.0000			.0000			.0000
180.000			.0000		.0000			.0000			.0000			.0000
X/L	.1200	.1250	.1300	.1400	.1500	.1580	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1820

AEDC VA352 CH48 Q2 QRB. FUSELAGE (ATK830)

$$\text{MACH} (1) = 0.000 \quad \text{ALPHA} (3) = 35.000$$

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI	.1423	.1305	.1241	.1103	.1137						.1118	.1126			
10,000				.0000											
20,000				.0000											
25,500				.0000											
40,000				.0000											
45,500				.0000											
131,200															
145,400															
146,200															
156,000															
159,200															
170,700															
171,900															
173,400															
180,000															
X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI	.1117	.1034	.1034	.0925	.0927	.0859	.0992	.1067	.0937	.0871	.0863	.0826	.0783		
11,500				.0000											
12,000				.0000											
21,500															
23,000															
24,000				.1254											
31,500				.1403											
34,000															
35,000				.1349											
40,000				.1273											
45,000															
51,000				.0000											
57,500															
59,500															
61,000															
65,000															
70,000															
96,500				.0000											
105,000															
106,000															
135,000															
140,000				.0000											
141,400															
151,000															
180,000				.0000											
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500

AEDC VA352 CH4B 02 ORB. FUSELAGE

(ATK830)

MACH (1) = 8.000 ALPHA (3) = 35.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.9000	.9250	.9500	.9750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.000	.0766	.0760	.0764	.0733	.0783	.0787	.0801	.0810	.0794	.0863	.0888	.0881	.1039	.1099	
21.000	.0813				.0679				.0829				.0939		
63.000	.0000								.0000						
64.000									.0000						
65.000					.0000								.0000		
65.500					.0000				.0000				.0000		
105.000	.0000				.0000				.0000				.0000		
111.000					.0000										.0000
112.000					.0000										
113.000					.0000										
116.000					.0000				.0000		.0000				
135.000	.0000				.0000				.0000		.0000				
149.000					.0000				.0000		.0000				
180.000	.0000				.0000				.0000				.0000		
X/L	.8900	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.1155	.1169	.1142	.1189	.1104	.1188	.1246	.0000		.1193	.0000	.1252			
21.000			.1184												
39.000							.0000						.0000		
52.000															
55.000			.0000												
65.000			.0000												
68.000							.0000								
100.000			.0000												
108.000			.0000				.0000								
112.000							.0000								
113.000								.0000							

AEDC VA352 CH4B 02 CRB. FUSELAGE

(ATK831) (27 APR 74)

REFERENCE DATA

SREF =	.0230 SQ.FT.	XARP =	.0000 IN.
LREF =	22.5803 IN.	YARP =	.0000 IN.
BREF =	16.3919 IN.	ZARP =	.0000 IN.
SCALE =	.0175 SCALE		

PARAMETRIC DATA

BETA	=	.000	RN/L	=	.500
B.FLAP	=	.000	ELEVON	=	.000
HAW/HT	=	.900			

MACH (1) =	8.000	ALPHA (1) =	25.000	TI =	92.933	QI =	.523	HREF =	.018
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SECTION (1) ORBITER FUSELAGE	DEPENDENT VARIABLE HU/HO
1	0.0000
2	0.0000
3	0.0000
4	0.0000
5	0.0000
6	0.0000
7	0.0000
8	0.0000
9	0.0000
10	0.0000
11	0.0000
12	0.0000
13	0.0000
14	0.0000
15	0.0000
16	0.0000
17	0.0000
18	0.0000
19	0.0000
20	0.0000
21	0.0000
22	0.0000
23	0.0000
24	0.0000
25	0.0000
26	0.0000
27	0.0000
28	0.0000
29	0.0000
30	0.0000
31	0.0000
32	0.0000
33	0.0000
34	0.0000
35	0.0000
36	0.0000
37	0.0000
38	0.0000
39	0.0000
40	0.0000
41	0.0000
42	0.0000
43	0.0000
44	0.0000
45	0.0000
46	0.0000
47	0.0000
48	0.0000
49	0.0000
50	0.0000
51	0.0000
52	0.0000
53	0.0000
54	0.0000
55	0.0000
56	0.0000
57	0.0000
58	0.0000
59	0.0000
60	0.0000
61	0.0000
62	0.0000
63	0.0000
64	0.0000
65	0.0000
66	0.0000
67	0.0000
68	0.0000
69	0.0000
70	0.0000
71	0.0000
72	0.0000
73	0.0000
74	0.0000
75	0.0000
76	0.0000
77	0.0000
78	0.0000
79	0.0000
80	0.0000
81	0.0000
82	0.0000
83	0.0000
84	0.0000
85	0.0000
86	0.0000
87	0.0000
88	0.0000
89	0.0000
90	0.0000
91	0.0000
92	0.0000
93	0.0000
94	0.0000
95	0.0000
96	0.0000
97	0.0000
98	0.0000
99	0.0000
100	0.0000

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
-----	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

PHI	.6110	.6053	.4929	.3130	.2516	.2112	.1789	.1492	.1303	.1214	.1121	.1073
10,000												.0000
14,000							.0000					.0000
20,000							.0000					.0000
22,000							.0000					.0000
24,500							.0000					.0000
35,000							.0000					.0000
39,000							.0000					.0000
42,500							.0000			.0000		.0000
48,000							.0000					.0000
60,000							.0000					.0000
19,000							.0000					.0000
80,000			.0000		.0000		.0000					.0000

[illegible]

PHI	.0985	.0910	.0838	.0763	.0767	.0755	.0738
.000				.0763			
10.000				.0000			
20.000				.0000			
25.500				.0000			
40.000				.0000			
45.500				.0000			
131.200					.0000		
145.400					.0000		.0000
146.200					.0000		
156.000							.0000
159.200							
170.700						.0000	
171.900							
173.400						.0000	
180.000	.0000			.0000	.0000		.0000

[illegible][illegible]

AEDC VA332 CH48 C2 CRB. FUSELAGE

(ATK831)

MACH (1) = 8.000 ALPHA (1) = 25.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/H0

X/L	.1830	.1900	.1916	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
12.000								.0000							
21.500								.0750				.0621			
23.000															
24.000				.0898											
31.500				.1026											
34.000								.0000							
35.000				.1031											
40.000				.1015				.0842							
45.000								.0850							
51.000				.0000				.0000				.0000			
57.500								.0000							
59.500								.0000							
61.000								.0000							
65.000								.0000							
70.000				.0000				.0000							
96.500								.0000							
105.000								.0000							
106.000								.0000							
135.000				.0000				.0000							
140.000								.0000							
141.400	.0000														
151.000			.0000												
160.000				.0000		.0000		.0000				.0000			
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.000	.0507	.0807	.0492	.0503	.0491	.0495	.0492	.0456	.0429	.0436	.0410	.0403	.0367	.0331	
21.500	.0569				.0466				.0472				.0357		
63.000	.0000								.0000						
64.000									.0000						
65.000					.0000				.0000				.0000		
105.000	.0000				.0000				.0000				.0000		
111.000					.0000				.0000						
112.000					.0000										
113.000					.0000										
116.000	.0000				.0000				.0000		.0000				
135.000					.0000				.0000						
149.000					.0000				.0000		.0000				
160.000	.0000				.0000				.0000				.0000		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			

PHI

(ATK831)

AEDC VA352 CH48 02 ORB, FUSELAGE

MACH (1) = 8.000 ALPHA (1) = 25.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .8500 .8750 .9000 .9250 .9500 .9750 1.0000 1.0130 1.0140 1.0250 1.0380 1.0500

PHI

.000 .0315 .0294 .0256 .0243 .0203 .0203 .0174 .0000 .0174 .0000 .0146
 21.500 .0282
 39.000
 52.500 .0000
 55.000 .0000
 65.000 .0000
 68.000 .0000
 100.000 .0000
 108.000 .0000
 112.000 .0000
 113.000 .0000

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 92.933 QI = .523 HREF = .018

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .0000 .0050 .0100 .0200 .0250 .0300 .0400 .0500 .0600 .0700 .0750 .0780 .0800 .0900 .1000

PHI

.5730 .6155 .5336 .3533 .2815 .2489 .2040 .1749 .1562 .1465 .1370 .1353
 10.000
 14.000 .0000
 20.000 .0000
 22.000 .0000
 24.500 .0000
 35.000 .0000
 39.000 .0000
 42.500 .0000
 48.000 .0000
 60.000 .0000
 119.000 .0000
 180.000 .0000

X/L .1200 .1250 .1300 .1400 .1500 .1560 .1600 .1620 .1670 .1700 .1780 .1810 .1820

PHI

.1246 .1190 .1078 .0994 .0991 .0965 .0953
 10.000 .0000
 20.000 .0000
 25.500 .0000
 40.000 .0000
 45.500 .0000
 131.200 .0000
 145.400 .0000
 146.200 .0000

AEDC VA352 CH48 02 ORB. FUSELAGE

(ATTR831)

MACH (1) = 8.000 ALPHA (2) = 30.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0000				.0000				.0000				.0000		.0000
111.000					.0000										
112.000					.0000										
113.000					.0000										
116.000											.0000				
135.000	.0000				.0000			.0000							
149.000					.0000				.0000						
160.000	.0000				.0000				.0000						.0000
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			

PHI

.000	.0413	.0395	.0352	.0329	.0277	.0274	.0242	.0000		.0232	.0000	.0215			
21.500			.0391												
39.000						.0000						.0000			
52.500															
55.000			.0000			.0000									
65.000			.0000												
68.000						.0000									
100.000			.0000												
108.000			.0000			.0000									
112.000							.0000								
113.000									.0000						

MACH (1) = 8.000 ALPHA (3) = 35.000 T1 = 92.933 Q1 = .523 HREF = .018

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000	
PHI															
.000	.5292	.6171	.5421	.3687	.3082	.2723	.2330	.1991	.1806			.1691	.1588	.1542	.1500
10.000															.0000
14.000															.0000
20.000															.0000
22.000															.0000
24.500															.0000
35.000															.0000
39.000															.0000
42.500															.0000
48.000															.0000
60.000															.0000
119.000															.0000
180.000			.0000		.0000		.0000								.0000

(ATK931)

AEDC VA352 CH4B OR ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (3) = 35.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI															
.000	.1453	.1370	.1254	.1190		.1172					.1153		.1129		
10.000				.0000											
20.000				.0000											
25.000				.0000											
40.000				.0000											
45.000				.0000											
131.200					.0000										
145.400															.0000
146.200								.0000							
156.000															.0000
159.200															.0000
170.700															
171.900										.0000					
173.400					.0000										
180.000															
X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
.000	.1144	.1037	.1000	.1006	.0958	.0905	.1018	.1080	.0922	.0883	.0864	.0823	.0807		
11.900		.0000				.0000									
12.000															
21.900						.1090					.0907				
23.000															
24.000			.1316												
31.900			.1445												
34.000								.0000							
35.000			.1384					.1205							
40.000			.1277					.1153							
45.000															
51.000			.0000					.0000							
57.500															
59.500											.0000				
61.000								.0000							
65.000								.0000							
70.000								.0000							
96.500				.0000											
103.000												.0000			
106.000								.0000							
135.000								.0000							
140.000				.0000											
141.400	.0000														
151.000			.0000					.0000							
180.000						.0000									
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA392)

PAGE 193

(ATK831)

AEDC VA392 CH48 02 CRB. FUSELAGE

MACH (1) = 8.000 ALPHA (3) = 35.000

SECTION (1) CRBITTER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.000	.0779	.0768	.0771	.0739	.0746	.0754	.0725	.0718	.0668	.0668	.0638	.0599	.0585	.0322	
21.500	.0834				.0717				.0707				.0593		
63.000	.0000														
64.000									.0000						
65.000					.0000								.0000		
65.500					.0000										
105.000	.0000				.0000				.0000				.0000		
111.000					.0000										
112.000					.0000										
113.000					.0000										
116.000					.0000				.0000						
135.000	.0000				.0000				.0000						
149.000					.0000										
180.000	.0000				.0000				.0000				.0000		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.0496	.0481	.0434	.0415	.0361	.0334	.0311	.0000		.0296	.0000	.0277			
21.500			.0481												
39.000															
52.500															
55.000			.0000			.0000	.0000							.0000	
65.000			.0000												
68.000						.0000									
100.000			.0000												
108.000			.0000			.0000									
112.000							.0000								
113.000									.0000						

(ATK832) (27 APR 74)

AEDC VA352 CH4B C2 ORB. FUSELAGE

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 93.400 QI = 1.000 HREF = .024

PARAMETRIC DATA

BETA = .000 RM/L = 1.000
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .0000 .0050 .0100 .0200 .0250 .0300 .0400 .0500 .0600 .0700 .0750 .0760 .0800 .0900 .1000

PHI

.0000 .5646 .6135 .9095 .3385 .2763 .2407 .2109 .1721 .1585 .1424 .1343 .1214
 10.000 14.000 20.000 22.000 24.500 35.000 39.000 42.500 48.000 60.000 119.000 180.000
 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000

X/L

.1200 .1250 .1300 .1400 .1500 .1560 .1600 .1620 .1670 .1690 .1700 .1780 .1800 .1810 .1820

PHI

.0000 .1166 .1094 .1041 .0929 .0966 .0925 .0913 .0000 .0000 .0000 .0000 .0000 .0000 .0000
 10.000 20.000 25.500 40.000 45.500 131.200 145.400 146.200 156.000 159.200 170.700 171.900 173.400 180.000
 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000

X/L

.1830 .1900 .1910 .2000 .2250 .2500 .2750 .3000 .3250 .3500 .3750 .4000 .4250 .4500 .4750

PHI

.0000 .0919 .0833 .0633 .0000 .0747 .0756 .0760 .0854 .0738 .0731 .0705 .0665 .0629 .0629

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH4B (AEDC VA352)

PAGE 195

(ATK832)

AEDC VA352 CH4B O2 ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
12.000								.0000							
21.500								.0876				.0723			
23.000															
24.000				.1066											
31.500				.1222											
34.000								.0000							
35.000				.1183				.0999							
40.000				.1135				.0979							
45.000															
51.000				.0000				.0000				.0000			
57.500															
59.500								.0000							
61.000								.0000							
63.000								.0000							
70.000								.0000							
96.500				.0000											
105.000								.0000				.0000			
106.000								.0000				.0000			
135.000								.0000				.0000			
140.000				.0000											
141.400															
151.000				.0000											
180.000								.0000				.0000			
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.0000	.0622	.0628	.0612	.0649	.0643	.0609	.0601	.0565	.0522	.0531	.0512	.0473	.0451	.0402	
21.500	.0685				.0554								.0409		
63.000	.0000								.0000				.0000		
64.000															
65.000					.0000				.0000				.0000		
65.500					.0000				.0000				.0000		
109.000	.0000				.0000				.0000				.0000		
111.000					.0000								.0000		
112.000					.0000										
113.000					.0000										
116.000					.0000				.0000		.0000				
135.000	.0000				.0000				.0000		.0000				
149.000					.0000				.0000		.0000				
180.000	.0000				.0000				.0000		.0000				
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			

AEDC VA352 CH4B 02 ORB. FUSELAGE (ATK832)

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITTER FUSELAGE

DEPENDENT VARIABLE HU/H0

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0360	1.0500
PHI												
.000	.0372	.0367	.0333	.0306	.0260	.0248	.0220	.0000	.0210	.0000	.0192	
21.500			.0354									
39.000							.0000				.0000	
52.500			.0000			.0000						
55.000			.0000									
65.000			.0000									
68.000						.0000						
100.000			.0000									
108.000			.0000			.0000						
112.000							.0000					
113.000								.0000				

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 93.400 Q1 = 1.000 HREF = .024

SECTION (1) ORBITTER FUSELAGE

DEPENDENT VARIABLE HU/H0

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
.000	.5266	.6086	.5382	.3559	.3023	.2651	.2268	.1926	.1778	.1634	.1572	.1426	.1426	.1426	.1426
10.000							.0000							.0000	.0000
14.000							.0000							.0000	.0000
20.000							.0000							.0000	.0000
22.000							.0000							.0000	.0000
24.500							.0000							.0000	.0000
35.000							.0000							.0000	.0000
39.000							.0000							.0000	.0000
42.500							.0000							.0000	.0000
48.000							.0000							.0000	.0000
60.000							.0000							.0000	.0000
119.000							.0000							.0000	.0000
180.000							.0000							.0000	.0000

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
-----	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

PHI															
.000	.1398	.1318	.1234	.1165	.1164	.1147	.1130								
10.000				.0000											
20.000				.0000											
25.500				.0000											
40.000				.0000											
45.500				.0000											
131.200				.0000											
145.400							.0000								
146.200								.0000							.0000

(ATK832)

AEDC VA352 CH48 C2 CRB. FUSELAGE

$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (2) = 35.000$$

SECTION (1) ORBITER FUELAGE

[illegible]

(ATK832)

AEDC VA352 CH4B 02 CR2. FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .5000 .5250 .5500 .5750 .6000 .6250 .6500 .6750 .7000 .7250 .7500 .7750 .8000 .8250 .8290

PHI

105.000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000

111.000

112.000

113.000

116.000

135.000

149.000

180.000

X/L

.8500 .8750 .9000 .9250 .9500 .9750 1.0000 1.0130 1.0140 1.0250 1.0380 1.0500

PHI

.0000 .0487 .0482 .0425 .0415 .0354 .0337 .0310 .0000 .0302 .0000 .0284 .0000 .0000 .0000

21.500

39.000

52.500

55.000

65.000

68.000

100.000

108.000

112.000

113.000

MACH (1) = 8.000 ALPHA (3) = 45.000 TI = 93.400 Q1 = 1.000 HREF = .024

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .0000 .0050 .0100 .0200 .0250 .0300 .0400 .0500 .0600 .0700 .0750 .0760 .0800 .0900 .1000

PHI

.0000 .4179 .5740 .5279 .3918 .3428 .3046 .2733 .2295 .2126 .2008 .1916 .1847 .1847 .1847

10.000

14.000

20.000

22.000

24.500

35.000

39.000

42.500

48.000

60.000

119.000

180.000

X/L

.1200 .1250 .1300 .1400 .1500 .1580 .1600 .1620 .1670 .1690 .1700 .1760 .1800 .1810 .1820

(ATK832)

AEDC VA352 CH48 C2 CR8. FUSELAGE

MACH (1) = 8.000 ALPHA (3) = 45.000

SECTION (1) ORBITTER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI															
.000	.1749	.1677	.1600	.1477	.1518						.1496		.1483		
10.000				.0000											
20.000				.0000											
25.500				.0000											
40.000				.0000											
45.500				.0000											
131.200									.0000						
145.400								.0000							.0000
146.200															
156.000															.0000
159.200															
170.700															
171.900									.0000						
173.400															
180.000															

X/L

PHI

X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
.000	.1467	.1335	.1227	.1154	.1307	.1395	.1186	.1137	.1131	.1112	.1046				
11.500		.0000													
12.000															
21.900															
23.000															
24.000				.1602											
31.500				.1765											
34.000															
35.000				.1671											
40.000				.1482											
45.000															
51.000				.0000											
57.500															
99.500															
61.000															
65.000															
70.000															
96.500				.0000											
105.000															
106.000															
135.000															
140.000				.0000											
141.400	.0000														
151.000			.0000			.0000									
160.000				.0000		.0000									

PHI

PAGE 201

(ATK933) (27 APR 74)

PARAMETRIC DATA

BETA	=	.000	RN/L	=	1.250
B. FLAP	=	.000	ELEVON	=	.000
HAW/HT	=	.900			

230.

DEPENDENT VARIABLE HU/HO

0001.

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.1245 **.0000** **.0000** **.0000** **.0000**

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0641

(ATK833)

AEDC VA352 CH48 O2 CRB. FUSELAGE

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) CRBITTER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.8300	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
PHI	.0396	.0383	.0354	.0342	.0285	.0279	.0257	.0000	.0245	.0000	.0235	
.000			.0373									
21.500												
39.000												
52.500					.0000		.0000				.0000	
55.000			.0000									
65.000			.0000									
68.000					.0000							
100.000			.0000									
108.000			.0000									
112.000			.0000		.0000							
113.000							.0000					

.0000

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.250 QI = 1.253 REF = .027

SECTION (1) CRBITTER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
PHI	.5190	.6080	.5241	.3583	.2979	.2615	.2270	.1936	.1758	.1614	.1525	.1445	.0000	
.000														
10.000														
14.000								.0000						
20.000								.0000						
22.000								.0000						
24.500								.0000						
35.000								.0000						
39.000								.0000						
42.500								.0000						
48.000								.0000						
60.000								.0000						
119.000								.0000						
180.000			.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI	.1402	.1311	.1223	.1132	.1136	.1125	.1092								
.000															
10.000															
20.000															
25.500															
40.000															
45.500															
131.200									.0000						
145.400															
146.200															.0000

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.0000

(ATK533)

AEDC VA352 CH48 02 ORB. FUSELAGE

MACH (1) = 0.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .1200 .1250 .1300 .1350 .1400 .1500 .1550 .1600 .1620 .1670 .1690 .1700 .1750 .1800 .1810 .1820

PHI

156.000
199.200
170.700
171.900
173.400
180.000

X/L .1830 .1900 .1910 .2000 .2250 .2500 .2750 .3000 .3250 .3500 .3750 .4000 .4250 .4500 .4750

PHI

.000
11.500
12.000
21.500
23.000
24.000
31.900
34.000
35.000
40.000
45.000
51.000
57.500
59.500
61.000
65.000
70.000
96.500
105.000
106.000
135.000
140.000
141.400
151.000
180.000

.0880

.1071

.0000

.1134

.1074

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DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 205

AEDC VA352 CH48 O2 ORB. FUSELAGE (ATK833)

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/H0

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0000				.0000				.0000				.0000		.0000
111.000					.0000										
112.000					.0000										
113.000					.0000										
116.000					.0000				.0000		.0000				
135.000	.0000				.0000			.0000							
149.000					.0000			.0000			.0000				
180.000	.0000				.0000			.0000					.0000		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.0526	.0510	.0475	.0458	.0415	.0399	.0385	.0000		.0416	.0000	.0401			
21.500			.0485												
39.000						.0000	.0000						.0000		
52.500															
55.000			.0000												
65.000			.0000												
68.000						.0000									
100.000			.0000												
108.000			.0000												
112.000						.0000	.0000								
113.000								.0000							

(ATK834) (27 APR 74)

AEDC VA352 CH4B 02 CRB. FUSELAGE

REFERENCE DATA

SREF =	.8238 SQ. FT.	XMRP =	.0000 IN.
LREF =	22.9803 IN.	YMRP =	.0000 IN.
DREF =	16.3919 IN.	ZMRP =	.0000 IN.
SCALE =	.0175 SCALE		

MACH (1) =	8.000	ALPHA (1) =	30.000	TI =	94,900	QI =	1.534	HREF =	.030
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SECTION (1) GREITER FUSELAGE

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
PHI														
.000	.3675	.6099	.9213	.3384		.2722	.2361	.2017	.1692	.1532		.1422	.1344	.1228
10.000								.0000						.0000
14.000														.0000
20.000								.0000						.0000
22.000														.0000
24.500								.0000						.0000
35.000														.0000
39.000								.0000						.0000
42.500											.0000			.0000
48.000								.0000						.0000
60.000								.0000						.0000
119.000			.0000		.0000									.0000
190.000								.0000			.0000			.0000

X/L	.1200	.1250	.1300	.1400	.1500	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1820
1													
2													
3													
4													
5													
6													
7													
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48													
49													
50													

PHI	.1183	.1089	.1012	.0938	.0927	.0909	.0896
.000				.0000			
10.000				.0000			
20.000				.0000			
25.500				.0000			
40.000				.0000			
45.500				.0000			
131.200					.0000		
145.400					.0000		.0000
146.200							
156.000							.0000
159.200							
170.750							
171.900						.0000	
173.400					.0000		
180.000		.0000	.0000	.0000	.0000	.0000	.0000

X/L	.1830	.1900	.1910	.2000	.2250	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500
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PRI
.000 .0912 .0635 .0000 .0741 .0749 .0690 .0781 .0831 .0721 .0723 .0700 .0645 .0620
11.500 .0000

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA392)

PAGE 207

AEDC VA352 CH48 C2 CR8. FUSELAGE

(ATK834)

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITTER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.1850	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
12.000								.0000							
21.500								.0900				.0746			
23.000															
24.000				.1083											
31.500				.1230											
34.000								.0000							
35.000				.1183											
40.000				.1121				.1012							
45.000								.0958							
51.000				.0000											
57.500								.0000							
59.500												.0000			
61.000								.0000							
65.000								.0000							
70.000								.0000							
96.500				.0000											
105.000								.0000							
106.000								.0000							
135.000				.0000											
140.000								.0000							
141.400				.0000											
151.000															
180.000				.0000				.0000							
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.0000	.0608	.0605	.0600	.0669	.0609	.0597	.0586	.0565	.0533	.0534	.0529	.0495	.0490	.0447	
21.500	.0663				.0537				.0566				.0426		
63.000	.0000								.0000						
64.000															
65.000									.0000				.0000		
65.500					.0000										
105.000	.0000				.0000				.0000				.0000		
111.000															
112.000					.0000										
113.000					.0000										
116.000					.0000				.0000		.0000				
135.000	.0000				.0000				.0000						
149.000					.0000						.0000				
180.000	.0000				.0000				.0000				.0000		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0360	1.0500			

PHI

(ATK834)

AEDC VA352 CH4B Q2 ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/H0

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500
PHI												
.000	.0434	.0428	.0400	.0382	.0345	.0352	.0338	.0000	.0340	.0000	.0334	
21.500			.0420									
39.000												.0000
52.500												
55.000			.0000									
65.000			.0000									
68.000												
100.000			.0000									
108.000			.0000									
112.000												
113.000							.0000					.0000

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.900 QI = 1.534 HREF = .030

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/H0

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
PHI														
.000	.5184	.6070	.5261	.3574		.3007	.2599	.2299	.1929	.1755	.1617	.1555	.1466	.1466
10.000													.0000	.0000
14.000								.0000					.0000	.0000
20.000								.0000					.0000	.0000
22.000								.0000					.0000	.0000
24.500								.0000					.0000	.0000
35.000								.0000					.0000	.0000
39.000								.0000					.0000	.0000
42.500								.0000					.0000	.0000
46.000								.0000				.0000	.0000	.0000
60.000								.0000				.0000	.0000	.0000
119.000			.0000		.0000			.0000				.0000	.0000	.0000
180.000								.0000				.0000	.0000	.0000

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1760	.1800	.1810	.1820
-----	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

PHI

.000 .1406 .1314 .1229 .1125 .1151 .1126 .1124

10.000 20.000 25.500 40.000 45.500 131.200 145.400 146.200

.0000

.0000

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 209

AEDC VA352 CH48 02 ORB. FUSELAGE

(ATK834)

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITTER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.1200	.1250	.1300	.1400	.1500	.1550	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
-----	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

PHI

156.000														.0000	.0000
159.200															
170.700															
171.900															
173.400															
180.000															

X/L

PHI

.000	.1130	.1042	.0000	.0916	.0950	.0885	.0994	.1048	.0917	.0884	.0856	.0787	.0760		
11.500		.0000				.0000									
12.000															
21.500															
23.000															
24.000															
31.500															
34.000															
35.000															
40.000															
45.000															
51.000															
57.500															
59.500															
61.000															
65.000															
70.000															
96.500															
105.000															
106.000															
135.000															
140.000															
141.400															
151.000															
180.000															

X/L

PHI

.000	.0758	.0745	.0745	.0749	.0745	.0724	.0736	.0715	.0677	.0697	.0676	.0646	.0679	.0833	
21.500															
63.000															
64.000															
65.000															

X/L

(ATK834)

AEDC VA352 CH48 02 CRD. FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE MU/HO

Y/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0000				.0000				.0000				.0000		.0000
111.000					.0000										
112.000					.0000										
113.000					.0000										
116.000					.0000				.0000		.0000				
135.000	.0000				.0000			.0000							
149.000					.0000				.0000		.0000				
180.000	.0000				.0000				.0000				.0000		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.0647	.0643	.0628	.0632	.0561	.0616	.0601	.0000		.0609	.0000	.0601			
21.500			.0621												
39.000															
52.500						.0000	.0000							.0000	
55.000			.0000												
65.000			.0000												
68.000						.0000									
100.000			.0000			.0000									
108.000			.0000			.0000									
112.000						.0000	.0000								
113.000									.0000						

AEDC VA352 CH4B 02 CRB. FUSELAGE

(ATK835) (27 APR 74)

REFERENCE DATA

SREF =	.9238 SQ.FT.	XMRP =	.0000 IN.
LREF =	22,5803 IN.	YMRP =	.0000 IN.
BREF =	16,3919 IN.	ZMRP =	.0000 IN.
SCALE =	.0175 SCALE		

PARAMETRIC DATA

BETA	=	.000	RN/L	=	1.750
B.FLAP	=	.000	ELEVON	=	.000
HAW/HT	=	.900			

MACH (1) =	8.000	ALPHA (1) =	30.000	TI	=	95.200	QI	=	1.797	REF	=	.033
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SECTION (1) CRITTER FUSELAGE

x/L
.0000 .0050 .0100 .0200 .0250 .0300 .0400 .0500 .0600 .0700 .0750 .0800 .0900 .1000

[illegible]

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1760	.1800	.1810	.1820
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[illegible]

131,200		.0000			
145,400					
146,200		.0000			.0000
156,000					
159,200					.0000
170,700					.0000
171,900				.0000	
173,400					
180,000			.0000		.0000

X/L	.1850	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
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[illegible]

AEDC VA352 CH48 Q2 QF8. FUSELAGE (ATK835)

$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (1) = 30.000$$

SECTION (1) ORBITER FUSELAGE

[illegible]
$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (2) = 35.000 \quad \text{TI} = 95.200 \quad \text{QI} = 1.797 \quad \text{HREF} = .033$$

SECTION (1) CRITTER FUSELAGE	DEPENDENT VARIABLE HU/HO
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
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53	53
54	54
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56	56
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62	62
63	63
64	64
65	65
66	66
67	67
68	68
69	69
70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
P-HI														
.000	.5198	.6037	.5037	.3610		.3003	.2617	.2282	.1910	.1743		.1616	.1521	.1397
10.000														.0000
14.000								.0000						.0000
20.000								.0000						.0000
22.000								.0000						.0000
24.500								.0000						.0000
35.000								.0000						.0000
39.000								.0000						.0000
42.500								.0000						.0000
48.000								.0000						.0000
60.000								.			.0000			
119.000								.0000						.0000
180.000								.0000						.0000

[illegible]

YABINATED DATA LISTING FOR CH4B (AEDC VA352)

(ATK835)

AETDC VA352 CH4B 02 CRB. FUSELAGE

$$\text{MACH (1)} = 8.000 \quad \text{ALPHA (2)} = 35.000$$

SECTION / CHARACTER FUSE AGE

[illegible]

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA392)

PAGE 219

AEDC VA392 CH48 02 CFB. FUSELAGE (ATK835)

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/H0

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0000				.0000				.0000				.0000		.0000
111.000															
112.000					.0000										.0000
113.000					.0000										
116.000											.0000				
135.000	.0000				.0000			.0000							
149.000											.0000				
180.000	.0000				.0000			.0000					.0000		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.0807	.0818	.0807	.0818	.0766	.0807	.0876	.0000		.0880	.0000	.0903			
21.500			.0832												
39.000							.0000					.0000			
52.500						.0000									
55.000			.0000												
65.000			.0000												
68.000															
100.000			.0000			.0000									
108.000			.0000												
112.000						.0000	.0000								
113.000								.0000							

AEDC VA352 CH4B C2 CRB. FUSELAGE

(ATK936) (27 APR 74)

REFERENCE DATA

SREP = .0236 SQ.FT. XWP = .0000 IN.
LREP = 22.5803 IN. YWP = .0000 IN.
DREP = 16.3919 IN. ZWP = .0000 IN.
SCALE = .0175 SCALE

BETA = .000 RN/L = 2.000
S_FLAP = .000 ELEVON = .000
HAW/HT = .900

MACH (1) = 8.0000	ALPHA (1) = 30.0000	TI = 94.967	QI = 1.994	HREF = .035
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SECTION (1) CRIBTER FUSELAGE

DEPENDENT VARIABLE HUMHO

[illegible]

PHI	.5695	.6049	.5187	.5345	.2739	.2371	.2032	.1707	.1544	.1403	.1316	.1163
.000												.0000
10.000							.0000					.0000
14.000							.0000					.0000
20.000							.0000					.0000
22.000							.0000					.0000
24.500							.0000					.0000
35.000							.0000					.0000
39.000							.0000					.0000
42.500							.0000					.0000
48.000							.0000			.0000		.0000
60.000							.0000					.0000
119.000							.0000					.0000
180.000			.0000		.0000		.0000					.0000

[illegible]

RAI	.1121	.1043	.1008	.0923	.0928	.0909	.0902
.000				.0923			
10.000				.0000			
20.000				.0000			
25.500				.0000			
40.000				.0000			
45.500				.0000			
131.200						.0000	
145.400							.0000
146.200					.0000		
156.000						.0000	
159.200							.0000
170.000							.0000

X/L	.1630	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
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[illegible]

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 217

(ATK836)

AEDC VA352 CH48 02 CR8. FUSELAGE

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITTER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
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PHI

12.000

21.500

23.000

24.000

31.500

34.000

35.000

40.000

45.000

51.000

57.500

59.500

61.000

65.000

70.000

96.500

105.000

106.000

135.000

140.000

141.400

151.000

180.000

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X/L

PHI

(ATK836)

AEDC VA352 CH4B 02 CRB, FUSELAGE

$$\text{WACH}(1) = 8.050 \quad \text{ALPHA}(1) = 30.000$$

SECTION (1) CRITTER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L
.8500 .9750 .9000 .9250 .9500 .9750 1.0000 1.0130 1.0140 1.0250 1.0380 1.0500

三

	.000	.0633	.0664	.0660	.0675	.0640	.0685	.0711	.0000	.0728	.0000	.0739
21,300				.0667								
39,000								.0000				
52,500				.0000			.0000					
55,000				.0000								
63,000				.0000								
68,000							.0000					
100,000				.0000								
108,000				.0000			.0000					
112,000								.0000				
113,000										.0000		

MACH (1) =	8.000	ALPHA (2) =	35.000	TI =	94.967	QI =	1.984	HREF =	.035
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SECTION (1) CRITTER FUSELAGE DEPENDENT VARIABLE HU/HO

[illegible]

三

Year	1956	1964	1973	1981	1990
10,000	.5156	.6045	.5153	.3611	.2986
14,000					.2604
20,000					.2250
22,000					.2000
24,500					.0000
35,000					.0000
39,000					.0000
42,500					.0000
48,000					.0000
60,000					.0000
119,000					.0000
180,000					.0000

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
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42														
43														
44														
45														
46														
47														

10

.000	.1402	.1327	.1197	.1126	.1150	.1126	.1116
10,000				.0000			
20,000				.0000			
25,500				.0000			
40,000				.0000			
45,500				.0000			
131,200						.0000	
145,400							
46,200					.0000	.0000	.0000



(ATTN38)

AEDC VA352 CH48 O2 CRB. FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0000				.0000			.0000					.0000		.0000
111.000					.0000										
112.000					.0000										.0000
113.000					.0000										
116.000					.0000				.0000		.0000				
135.000	.0000				.0000			.0000							
149.000					.0000			.0000			.0000				
180.000	.0000				.0000			.0000					.0000		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.1095	.1121	.1122	.1165	.1079	.1171	.1220	.0000		.1203	.0000	.1237			
21.500															
39.000															
52.500					.0000		.0000						.0000		
55.000					.0000										
65.000					.0000										
68.000					.0000										
100.000					.0000										
106.000					.0000										
112.000					.0000		.0000								
115.000					.0000			.0000							

MACH (1) = 8.000 ALPHA (3) = 45.000 TI = 94.967 QI = 1.984 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
.000	.4119	.5724	.5390	.3941	.3382	.3061	.2724	.2290	.2119				.2007	.1807	.1638
10.000															.0000
14.000								.0000							.0000
20.000								.0000							.0000
22.000								.0000							.0000
24.500								.0000							.0000
35.000								.0000							.0000
39.000								.0000							.0000
42.500								.0000				.0000			
48.000								.0000							.0000
60.000								.0000			.0000				.0000
119.000			.0000		.0000			.0000							.0000
180.000															
X/L	.1200	.1250	.1300	.1400	.1500	.1580	.1600	.1620	.1670	.1690	.1700	.1760	.1800	.1810	.1820

(ATKB36)

TABULATED DATA LISTING FOR CH48 (AEDC VA332)
AEDC VA332 CH48 C2 CRB. FUSELAGE

DATE 12 DEC 74

MACH (1) = 8.000		ALPHA (3) = 45.000		DEPENDENT VARIABLE HU/HO	
SECTION (1) CRBITTER FUSELAGE					
X/L					
PHI					
.000	.1734	.1661	.1586	.1484	.1495
10.000				.0000	
20.000				.0000	
25.900				.0000	
40.000				.0000	
45.900				.0000	
131.200				.0000	
145.400				.0000	
146.200				.0000	
156.000				.0000	
159.200				.0000	
170.700				.0000	
171.900				.0000	
173.400				.0000	
180.000				.0000	
X/L					
.1830	.1900	.1910	.2000	.2250	.2500
				.2750	.3000
				.3250	.3500
				.3750	.4000
				.4250	.4500
				.4750	.5054
				.5128	.5485
				.5837	.6197
				.6500	.6863
				.7500	.7863
				.8500	.8863
				.9500	.9863
				1.0500	1.0863
				1.1500	1.1863
				1.2500	1.2863
				1.3500	1.3863
				1.4500	1.4863
				1.5500	1.5863
				1.6500	1.6863
				1.7500	1.7863
				1.8500	1.8863
				1.9500	1.9863
				2.0500	2.0863
				2.1500	2.1863
				2.2500	2.2863
				2.3500	2.3863
				2.4500	2.4863
				2.5500	2.5863
				2.6500	2.6863
				2.7500	2.7863
				2.8500	2.8863
				2.9500	2.9863
				3.0500	3.0863
				3.1500	3.1863
				3.2500	3.2863
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				3.4500	3.4863
				3.5500	3.5863
				3.6500	3.6863
				3.7500	3.7863
				3.8500	3.8863
				3.9500	3.9863
				4.0500	4.0863
				4.1500	4.1863
				4.2500	4.2863
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				4.4500	4.4863
				4.5500	4.5863
				4.6500	4.6863
				4.7500	4.7863
				4.8500	4.8863
				4.9500	4.9863
				5.0500	5.0863
				5.1500	5.1863
				5.2500	5.2863
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				5.4500	5.4863
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				5.6500	5.6863
				5.7500	5.7863
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				5.9500	5.9863
				6.0500	6.0863
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				6.2500	6.2863
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				6.9500	6.9863
				7.0500	7.0863
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				7.2500	7.2863
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				13.9500	13.9863
				14.0500	14.0863
				14.1500	14.1863
				14.2500	14.2863
				14.3500	14.3863
				14.4500	14.4863
				14.5500	14.5863
				14.6500	14.6863
				14.7500	14.7863
				14.8500	14.8863
				14.9500	14.9863
				15.0500	15.0863
				15.1500	15.1863
				15.2500	15.2863
				15.3500	15.3863
				15.4500	15.4863
				15.5500	15.5863
				15.6500	15.6863
				15.7500	15.7863
				15.8500	15.8863
				15.9500	15.9863
				16.0500	16.0863
				16.1500	16.1863
				16.2500	16.2863
				16.3500	16.3863
				16.4500	16.4863
				16.5500	16.5863
				16.6500	16.6863
				16.7500	16.7863
				16.8500	16.8863
				16.9500	16.9863
				17.0500	17.0863
				17.1500	17.1863
				17.2500	17.2863
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				17.4500	17.4863
				17.5500	17.5863
				17.6500	17.6863
				17.7500	17.7863
				17.8500	17.8863
				17.9500	17.9863
				18.0500	18.0863
				18.1500	18.1863
				18.2500	18.2863
				18.3500	18.3863
				18.4500	18.4863
				18.5500	18.5863
				18.6500	18.6863
				18.7500	18.7863
				18.8500	18.8863
				18.9500	18.9863
				19.0500	19.0863
				19.1500	19.1863
				19.2500	19.2863
				19.3500	19.3863
				19.4500	19.4863
				19.5500	19.5863
				19.6500	19.6863
				19.7500	19.7863
				19.8500	19.8863
				19.9500	19.9863
				20.0500	20.0863
				20.1500	20.1863
				20.2500	20.2863
				20.3500	20.3863
				20.4500	20.4863
				20.5500	20.5863
				20.6500	20.6863
				20.7500	20.7863
				20.8500	20.8863
				20.9500	20.9863
				21.0500	21.0863
				21.1500	21.1863
				21.2500	21.2863
				21.3500	21.3863
				21.4500	21.4863
				21.5500	21.5863
				21.6500	21.6863
				21.7500	21.7863
				21.8500	21.8863
				21.9500	21.9863
				22.0500	22.0863
				22.1500	22.1863
				22.2500	22.2863
				22.3500	22.3863
				22.4500	22.4863

(ATK836)

WATER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
.000	.1042	.0961	.1005	.1035	.0980	.0995	.0984	.0961	.0907	.0946	.0955	.0902	.0940	.0962	.0990
21.500	.1069				.0871				.0971				.0940		.0900
39.000	.0000								.0000				.0000		.0000
56.500									.0000				.0000		.0000
73.500									.0000				.0000		.0000
90.500	.0000								.0000				.0000		.0000
107.500									.0000				.0000		.0000
124.500									.0000				.0000		.0000
141.500									.0000				.0000		.0000
158.500									.0000				.0000		.0000
175.500									.0000				.0000		.0000
192.500									.0000				.0000		.0000
209.500									.0000				.0000		.0000
226.500									.0000				.0000		.0000
243.500									.0000				.0000		.0000
260.500									.0000				.0000		.0000
277.500									.0000				.0000		.0000
294.500									.0000				.0000		.0000
311.500									.0000				.0000		.0000
328.500									.0000				.0000		.0000
345.500									.0000				.0000		.0000
362.500									.0000				.0000		.0000
379.500									.0000				.0000		.0000
396.500									.0000				.0000		.0000
413.500									.0000				.0000		.0000
430.500									.0000				.0000		.0000
447.500									.0000				.0000		.0000
464.500									.0000				.0000		.0000
481.500									.0000				.0000		.0000
498.500									.0000				.0000		.0000
515.500									.0000				.0000		.0000
532.500									.0000				.0000		.0000
549.500									.0000				.0000		.0000
566.500									.0000				.0000		.0000
583.500									.0000				.0000		.0000
600.500									.0000				.0000		.0000
617.500									.0000				.0000		.0000
634.500									.0000				.0000		.0000
651.500									.0000				.0000		.0000
668.500									.0000				.0000		.0000
685.500									.0000				.0000		.0000
702.500									.0000				.0000		.0000
719.500									.0000				.0000		.0000
736.500									.0000				.0000		.0000
753.500									.0000				.0000		.0000
770.500									.0000				.0000		.0000
787.500									.0000				.0000		.0000
804.500									.0000				.0000		.0000
821.500									.0000				.0000		.0000
838.500									.0000				.0000		.0000
855.500									.0000				.0000		.0000
872.500									.0000				.0000		.0000
889.500									.0000				.0000		.0000
906.500									.0000				.0000		.0000
923.500									.0000				.0000		.0000
940.500									.0000				.0000		.0000
957.500									.0000				.0000		.0000
974.500									.0000				.0000		.0000
991.500									.0000				.0000		.0000
1008.500									.0000				.0000		.0000
1025.500									.0000				.0000		.0000
1042.500									.0000				.0000		.0000
1059.500									.0000				.0000		.0000
1076.500									.0000				.0000		.0000
1093.500									.0000				.0000		.0000
1110.500									.0000				.0000		.0000
1127.500									.0000				.0000		.0000
1144.500									.0000				.0000		.0000
1161.500									.0000				.0000		.0000
1178.500									.0000				.0000		.0000
1195.500									.0000				.0000		.0000
1212.500									.0000				.0000		.0000
1229.500									.0000				.0000		.0000
1246.500									.0000				.0000		.0000
1263.500									.0000				.0000		.0000
1280.500									.0000				.0000		.0000
1297.500									.0000				.0000		.0000
1314.500									.0000				.0000		.0000
1331.500									.0000				.0000		.0000
1348.500									.0000				.0000		.0000
1365.500									.0000				.0000		.0000
1382.500									.0000				.0000		.0000
1399.500									.0000				.0000		.0000
1416.500									.0000				.0000		.0000
1433.500									.0000				.0000		.0000
1450.500									.0000				.0000		.0000
1467.500									.0000				.0000		.0000
1484.500									.0000				.0000		.0000
1501.500									.0000				.0000		.0000
1518.500									.0000				.0000		.0000
1535.500									.0000				.0000		.0000
1552.500									.0000				.0000		.0000
1569.500									.0000				.0000		.0000
1586.500									.0000				.0000		.0000
1603.500									.0000				.0000		.0000
1620.500									.0000				.0000		.0000
1637.500									.0000				.0000		.0000
1654.500									.0000				.0000		.0000
1671.500									.0000				.0000		.0000
1688.500									.0000				.0000		.0000
1705.500									.0000				.0000		.0000
1722.500									.0000				.0000		.0000
1739.500									.0000				.0000		.0000
1756.500									.0000				.0000		.0000
1773.500									.0000				.0000		.0000
1790.500									.0000				.0000		.0000
1807.500									.0000				.0000		.0000
1824.500									.0000				.0000		.0000
1841.500									.0000				.0000		.0000
1858.500									.0000				.0000		.0000
1875.500									.0000				.0000		.0000
1892.500									.0000				.0000		.0000
1909.500									.0000				.0000		.0000
1926.500									.0000				.0000		.0000
1943.500									.0000				.0000		.0000
1960.500									.0000				.0000		.0000
1977.500									.0000				.0000		.0000
1994.500									.0000				.0000		.0000
2011.500									.0000				.0000		.0000
2028.500									.0000				.0000		.0000
2045.500									.0000				.0000		.0000
2062.500									.0000				.0000		.0000
2079.500									.0000				.0000		.0000
2096.500									.0000				.0000		.0000
2113.500									.0000				.0000		.0000
2130.500									.0000				.0000		.0000
2147.500									.0000				.0000		.0000
2164.500									.0000				.0000		.0000
2181.500									.0000				.0000		.0000
2198.500									.0000				.0000		.0000
2215.500									.0000						

(ATK837)

AEDC VA352 CH48 02 GRB. FUSELAGE

$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (1) = 30.000$$

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.1850	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI								.0000				.0750			
12.000								.0000							
21.500								.0916							
23.000															
24.000				.1048											
31.500				.1187											
34.000								.0000							
35.000				.1148				.0962							
40.000				.1126				.0928							
45.000															
51.000				.0000				.0000				.0000			
57.500								.0000							
59.500								.0000							
61.000								.0000							
65.000								.0000							
70.000								.0000							
96.500				.0000								.0000			
105.000								.0000							
106.000								.0000							
135.000								.0000				.0000			
140.000				.0000											
141.400															
151.000															
150.000				.0000				.0000				.0000			
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI								.0000							
.000	.0613	.0625	.0610	.0624	.0636	.0637	.0644	.0644	.0630	.0696	.0741	.0744	.0859	.0910	
21.500	.0673				.0559				.0660				.0758		
64.000	.0000								.0000				.0000		
65.000									.0000				.0000		
65.500					.0000								.0000		
105.000	.0000				.0000				.0000				.0000		
111.000					.0000								.0000		.0000
112.000					.0000										
115.000					.0000										
116.000					.0000						.0000				
135.000	.0000				.0000				.0000						
149.000					.0000						.0000				
150.000	.0000				.0000				.0000						
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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(ATK837)

AEDC VA352 CH48 C2 ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.8900	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0290	1.0380	1.0500
PHI												
.000	.0972	.1010	.1017	.1091	.0951	.1032	.1079	.0000	.1078	.0000	.1091	.0000
21.500			.1029									
39.000												
52.500												
55.000			.0000			.0000						
65.000			.0000									
68.000						.0000						
100.000			.0000									
108.000			.0000			.0000						
112.000												
113.000						.0000						

.0000

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.200 QI = 2.341 HREF = .038

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
PHI														
.000	.5197	.6048	.5223	.3584	.2968	.2603	.2239	.1924	.1747	.1639	.1560	.1453	.0000	.0000
10.000														
14.000														
20.000							.0000							
22.000							.0000							
24.500							.0000							
35.000							.0000							
39.000							.0000							
42.500							.0000							
48.000							.0000							
60.000							.0000							
119.000							.0000							
180.000							.0000							

.0000

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
-----	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

PHI

.1363 .1298 .1201 .1150 .1141 .1116 .1124

10.000															
20.000															
25.500															
40.000															
45.500															
131.200															
145.400															
148.200															

.0000

.0000

(ATK337)

AEDC VA332 CH48 OE ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .1200 .1250 .1300 .1400 .1500 .1560 .1600 .1620 .1670 .1690 .1700 .1780 .1800 .1810 .1820

PHI

196.000

199.200

170.700

171.900

173.400

180.000

X/L

.1830

.1900

.1910

.2000

.2250

.2500

.2750

.3000

.3250

.3500

.3750

.4000

.4250

.4500

.4750

PHI

.000

11.500

12.000

21.500

23.000

24.000

31.500

34.000

35.000

40.000

45.000

51.000

57.500

59.500

61.000

65.000

70.000

96.500

105.000

106.000

135.000

140.000

141.400

151.000

150.000

X/L

.5000

.5250

.5500

.5750

.6000

.6250

.6500

.6750

.7000

.7250

.7500

.7750

.8000

.8250

.8290

PHI

.000

21.500

63.000

64.000

65.000

65.500

PHI

196.000

199.200

170.700

171.900

173.400

180.000

X/L

.1830

.1900

.1910

.2000

.2250

.2500

.2750

.3000

.3250

.3500

.3750

.4000

.4250

.4500

.4750

PHI

.000

11.500

12.000

21.500

23.000

24.000

31.500

34.000

35.000

40.000

45.000

51.000

57.500

59.500

61.000

65.000

70.000

96.500

105.000

106.000

135.000

140.000

141.400

151.000

150.000

X/L

.5000

.5250

.5500

.5750

.6000

.6250

.6500

.6750

.7000

.7250

.7500

.7750

.8000

.8250

.8290

PHI

.000

21.500

63.000

64.000

65.000

65.500

(ATK837)

AEDC VA352 CH4B 02 ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L
.5000 .5250 .5500 .5750 .6000 .6250 .6500 .6750 .7000 .7250 .7500 .8000 .8250 .8500

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[illegible]

7/8

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.000	.1590	.1590	.1580	.1624	.1451	.1553	.1600	.0000	.1535	.0000	.1544
21.500			.1669								
39.000											
52.500						.0000	.0000			.0000	
55.000			.0000								
65.000			.0000								
68.000						.0000					
100.000			.0000								
108.000			.0000			.0000					
112.000											
113.000							.0000			.0000	

AEDC VA352 CH4B C2 CRB. FUSELAGE

(ATKBSB) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMP = .0000 IN.
LREF = 22.5803 IN. YMP = .0000 IN.
DREF = 16.3919 IN. ZMP = .0000 IN.
SCALE = .0175 SCALE

BETA	=	.000	RN/L	=	2.500
B. FLAP	=	.000	ELEVEN	=	.000
HAW/HT	=	.900			

PARAMETRIC DATA

MACH (1) = 8.000	ALPHA (1) = 30.000	TI = 95.950	QI = 2.536	HREF = .039
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SECTION (1) CRIBITER FUSELAGE

DEPENDENT VARIABLE HUI/HO

x/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
-----	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

441	.5740	.6119	.5181	.3375	.2739	.2377	.1981	.1701	.1542	.1430	.1350	.1202
.000												.0000
10.000												.0000
14.000							.0000					.0000
20.000							.0000					.0000
22.000							.0000					.0000
24.500							.0000					.0000
35.000							.0000					.0000
39.000							.0000					.0000
42.500							.0000					.0000
48.000							.0000					.0000
60.000							.0000					.0000
119.000							.0000			.0000		.0000
180.000			.0000		.0000		.0000					.0000

.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

PHI	.1193	.1105	.1014	.0919	.0937	.0909	.0906
.0000							
10.0000							
20.0000							
25.5000							
40.0000							
45.5000							
131.2000							
145.4000							
146.2000							
156.0000							
159.2000							
170.7000							
171.9000							
173.4000							
190.0000							

[illegible]

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 O2 ORB. FUSELAGE (ATK838)

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/H0

X/L .1650 .1900 .1910 .2000 .2250 .2500 .2750 .3000 .3250 .3500 .3750 .4000 .4250 .4500 .4750

PHI

12.000

21.500

23.000

24.000

31.500

34.000

35.000

40.000

45.000

51.000

57.500

59.500

61.000

65.000

70.000

96.500

105.000

106.000

135.000

140.000

141.400

151.000

160.000

X/L

.5000

.5500

.5750

.5750

.6000

.6250

.6500

.6750

.7000

.7250

.7500

.7750

.8000

.8250

.8500

PHI

.0000

21.500

63.000

64.000

65.000

65.500

105.000

111.000

112.000

113.000

116.000

135.000

149.000

180.000

X/L

.8500

.8750

.9000

.9250

.9500

.9750

1.0000

1.0130

1.0140

1.0250

1.0380

1.0500

PHI

AE0C VA352 CH48 CR CRB, FUSelage (ATK836)

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) CRITTER FUSELAGE

DEPENDENT VARIABLE HU/HO

[illegible]

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.550 QI = 2.536 HREF = .039

SECTION (1) CRIBITER FUSELAGE

DEPENDENT VARIABLE: HUIHQ

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0760	.0800	.0900	.1000
PHI															
.000	.5226	.6093	.5424	.3627		.2979	.2624	.2276	.1917	.1750			.1635	.1537	.1448
10.000															.0000
14.000								.0000							.0000
20.000								.0000							.0000
22.000								.0000							.0000
24.500								.0000							.0000
35.000								.0000							.0000
39.000								.0000							.0000
42.500								.0000				.0000			.0000
48.000								.0000							.0000
60.000								.0000							.0000
119.000					.0000			.0000							.0000
180.000			.0000					.0000			.0000				.0000

[illegible]

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA552)

PAGE 231

AEDC VA352 CH4B C2 CRB. FUSELAGE (ATK838)

$$\text{MACH} (1) = 0.000 \quad \text{ALPHA} (2) = 35.000$$

SECTION (1) ORBITER FUSELAGE

[illegible]

AEDC VA352 CH48 O2 ORB. FUSELAGE (ATK838)

MACH (1) = 6.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE MU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0000				.0000				.0000				.0000		.0000
111.000					.0000										.0000
112.000					.0000										
113.000					.0000										
116.000											.0000				
135.000	.0000				.0000			.0000			.0000				
149.000									.0000						
180.000	.0000				.0000			.0000					.0000		
X/L	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500	.8750	.9000	.9250	.9500	.9750	1.0000
PHI															
.000	.1904	.1893	.1867	.1871	.1674	.1760	.1755	.0000		.1667	.0000	.1636			
21.900			.1881												
39.000															.0000
52.900						.0000	.0000								
55.000			.0000												
65.000			.0000												
68.000															
100.000			.0000												
106.000			.0000												
112.000					.0000	.0000									
113.000							.0000								

AEDC VA352 CH4B Q2 CRB. FUSELAGE

(ATK839) (27 APR 74)

REFERENCE DATA

SREF =	.6236 SQ.FT.	YGRP =	.0000 IN.
LREF =	22.5803 IN.	YMRP =	.0000 IN.
BREF =	16.3919 IN.	ZMRP =	.0000 IN.
SCALE =	.0175 SCALE		

PARAMETRIC DATA

BETA	=	.000	RN/L	=	2.750
B.FLAP	=	.000	ELEVON	=	.000
HAW/HT	=	.900			

MACH (1) =	8.000	ALPHA (1) =	30.000	TI	=	96.100	QI	=	2.816	HREF	=	.041
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SECTION (1) CRIBTER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
PHI														
10.000	.5746	.6140	.5335	.3378		.2753	.2378	.2054	.1697	.1535		.1411	.1334	.1246
14.000								.0000						.0000
20.000								.0000						.0000
22.000								.0000						.0000
24.500								.0000						.0000
35.000								.0000						.0000
39.000								.0000						.0000
42.500								.0000						.0000
48.000								.0000						.0000
60.000								.0000			.0000			.0000
119.000								.0000						.0000
180.000			.0000		.0000			.0000						.0000

x/L
.1200 .1250 .1300 .1400 .1500 .1600 .1670 .1690 .1700 .1780 .1800 .1810 .1820

PHI				
.000	.1191	.1099	.1026	.0924
10,000				.0000
20,000				.0000
25,500				.0000
40,000				.0000
45,500				.0000

131.200

145.400

146.200	
.0000	

136.000

159,200
159,200

82.241

171.900
173.400

273:453	0000	00000
1A0 000	0000	00000

00000'

00000'

00000'

00000'

[illegible][illegible]

AEDC VA352 CH48 CR CRB, FUSELAGE

(ATK 39)

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE

[illegible]

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AEDC VA352 CH48 O2 ORB. FUSELAGE (ATK859)

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .8500 .8750 .9000 .9250 .9500 .9750 1.0000 1.0130 1.0140 1.0230 1.0380 1.0500

PHI

.000	.1433	.1411	.1349	.1481	.1304	.1381	.1383	.0000	.1377	.0000	.1329
21.500	.1445										
39.000						.0000	.0000			.0000	
52.500			.0000								
95.000			.0000								
65.000						.0000					
68.000											
100.000			.0000								
108.000			.0000			.0000					
112.000					.0000						
113.000						.0000					

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 96.100 QI = 2.816 HREF = .041

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .0000 .0050 .0100 .0200 .0250 .0300 .0400 .0500 .0600 .0700 .0750 .0800 .0900 .1000

PHI

.000	.5231	.6110	.5349	.3996	.2995	.2613	.2282	.1909	.1792	.1618	.1552	.1435
10.000												.0000
14.000							.0000					.0000
20.000							.0000					.0000
22.000							.0000					.0000
24.500							.0000					.0000
35.000							.0000					.0000
39.000							.0000					.0000
42.500							.0000					.0000
48.000							.0000					.0000
60.000							.0000					.0000
119.000							.0000					.0000
180.000							.0000					.0000

X/L .1200 .1250 .1300 .1400 .1500 .1580 .1600 .1620 .1670 .1690 .1700 .1780 .1810 .1820

PHI

.000	.1406	.1293	.1205	.1114	.1139	.1123	.1105					
10.000				.0000								
20.000				.0000								
25.500				.0000								
40.000				.0000								
45.500				.0000								
131.200								.0000				
145.400								.0000				
146.200								.0000				.0000

(ATK839)

AEDC VA352 CH4B C2 CRB, FUSELAGE

$$\text{MACH} (1) = 6.000 \quad \text{ALPHA} (2) = 35.000$$

SECTION (1) TRITTER FUSELAGE

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI															
156.000														.0000	.0000
159.200															
170.700															
171.900															
173.400															
180.000		.0000			.0000	.0000	.0000			.0000		.0000			
X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
.000		.1131		.1033	.0000	.0923	.0927	.0848	.0955	.1070	.0923	.0906	.0884	.0843	.0826
11.900				.0000				.0000							
12.000								.0000							
21.900								.1060				.0919			
23.000															
24.000				.1236											
31.900				.1407				.0000							
34.000															
35.000				.1339				.1130							
40.000				.1259				.1088							
45.000															
51.000				.0000				.0000							
57.900															
59.900								.0000				.0000			
61.000								.0000							
63.000								.0000							
70.000								.0000							
96.900				.0000											
103.000								.0000				.0000			
106.000								.0000							
139.000								.0000				.0000			
140.000				.0000											
141.400															
151.000			.0000												
180.000				.0000				.0000				.0000			
X/L	.9000	.9250	.9500	.9750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8290
PHI															
.000	.0804	.1019	.0853	.0894	.0955	.1042	.1131	.1282	.1369	.1554	.1715	.1768	.2141	.2297	
21.900	.0852				.0837				.1404				.2038		
63.000	.0000														
64.000									.0000						
65.000															
65.900					.0000								.0000		

(ATK839)

AEDC VA352 CH48 C2 CRB. FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/H0

X/L .5000 .5250 .5500 .5750 .6000 .6250 .6500 .6750 .7000 .7250 .7500 .7750 .8000 .8250 .8500

PHI

105.000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000

111.000

112.000

113.000

116.000

135.000

149.000

160.000

X/L

.8500 .8750 .9000 .9250 .9500 .9750 1.0000 1.0130 1.0140 1.0250 1.0380 1.0500

PHI

.000

21.500

39.000

52.500

55.000

65.000

68.000

100.000

108.000

112.000

113.000

(ATK840)

AEDC VA352 CH4B 02 CRB. FUSELAGE

$$\text{MACH} (1) = 8.000 \quad \text{ALPHA} (1) = 30.000$$

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

[illegible]

(ATK840)

AEDC VA352 CH48 OR ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI															
156.000														.0000	.0000
159.200															
170.700															
171.900										.0000		.0000			.0000
173.400															
180.000		.0000			.0000	.0000	.0000				.0000		.0000		

PHI

156.000

159.200

170.700

171.900

173.400

180.000

X/L

.1830

.1900

.1910

.2000

.2000

.1034

.0936

.0921

.0851

.0967

.1072

.0938

.0899

.0903

.0862

.0824

.0000

.1031

.0000

.1216

.1407

.0000

.1359

.1267

.1144

.1096

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

X/L

.9000

.9250

.9500

.9750

.9800

.9800

.9800

.9800

.9800

.9800

.9800

.9800

.9800

.9800

PHI

.0829

.0903

.0900

.0829

.0829

.0829

.0829

.0829

.0829

.0829

.0829

(ATK840)

AEDC VA352 Q448 Q2 ORB. FUSELAGE

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITTER FUSELAGE DEPENDENT VARIABLE HU/HQ

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.7000	.7250	.7500	.7750	.8000	.8250	.8290
PHI														
105.000	.0000				.0000			.0000				.0000		.0000
111.000					.0000									
112.000					.0000									
113.000					.0000					.0000				
116.000					.0000			.0000		.0000				
135.000	.0000				.0000			.0000		.0000				
149.000					.0000			.0000		.0000				
160.000	.0000				.0000			.0000				.0000		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500		
PHI														
.000	.2581	.2598	.2289	.2212	.1921	.1976	.1911	.0000		.1784	.0000	.1723		
21.500			.2311				.0000					.0000		
39.000						.0000								
52.500			.0000			.0000								
55.000			.0000			.0000								
65.000			.0000			.0000								
68.000			.0000			.0000								
100.000			.0000			.0000								
108.000			.0000			.0000								
112.000			.0000			.0000	.0000							
113.000							.0000		.0000					

AEDC VA352 CH48 Q2 ORB. FUSELAGE

(ATK841) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CREF = 18.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RM/L = 3.350
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 97.600 QI = 3.536 HREF = .046

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
PHI	.000	.5778	.6119	.5233	.3350	.2760	.2381	.2037	.1691	.1520		.1398	.1316	.1196
10.000							.0000							.0000
14.000							.0000							.0000
20.000							.0000							.0000
22.000							.0000							.0000
24.500							.0000							.0000
35.000							.0000							.0000
39.000							.0000							.0000
42.500							.0000							.0000
48.000							.0000							.0000
60.000							.0000							.0000
119.000							.0000							.0000
180.000							.0000							.0000

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI	.1178	.1091	.1014	.0917	.0922						.0905		.0880		
10.000				.0000							.0000				.0000
20.000				.0000							.0000				.0000
25.500				.0000							.0000				.0000
40.000				.0000							.0000				.0000
45.500				.0000							.0000				.0000
131.200				.0000							.0000				.0000
145.400				.0000							.0000				.0000
146.200				.0000							.0000				.0000
156.000				.0000							.0000				.0000
159.200				.0000							.0000				.0000
170.700				.0000							.0000				.0000
171.900				.0000							.0000				.0000
173.400				.0000							.0000				.0000
180.000				.0000							.0000				.0000

X/L	.1830	.1900	.1910	.2000	.2250	.2500	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI	.0897	.0814	.0754	.0765	.0702	.0801	.0854	.0753	.0762	.0714	.0691	.0666			
10.000				.0000							.0000				.0000
11.900				.0000							.0000				.0000

(ATK841)

AEDC VA352 CH4B Q2 ORB. FUSELAGE

MACH (1) = 0.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HQ

X/L .1830 .1900 .1910 .2000 .2250 .2500 .2750 .3000 .3250 .3500 .3750 .4000 .4250 .4500 .4750

PHI

12.000

21.500

23.000

24.000

31.500

34.000

35.000

40.000

45.000

51.000

57.500

59.500

61.000

65.000

70.000

96.500

105.000

106.000

135.000

140.000

141.400

151.000

190.000

X/L

.5000

.5250

.5500

.5750

.6000

.6250

.6500

.6750

.7000

.7250

.7500

.7750

.8000

.8250

.8500

PHI

.0000

.0649

.0716

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

.0000

X/L

.8500

.8750

.9000

.9250

.9500

.9750

1.0000

1.0130

1.0140

1.0250

1.0380

1.0500

PHI

AEDC VA352 CH48 O2 ORB, FUSELAGE (ATK841)

MACH (1) = 8.000 ALPHA (1) = 30.000

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.6900	.6750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0360	1.0500
PHI												
.000	.1976	.1929	.1861	.1823	.1578	.1623	.1596	.0000		.1513	.0000	.1498
21.500			.1668									
39.000												
92.500						.0000		.0000				.0000
55.000			.0000									
65.000			.0000									
68.000					.0000							
100.000			.0000									
108.000			.0000									
112.000			.0000					.0000				
113.000									.0000			

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 97.600 Q1 = 3.536 HREF = .046

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0780	.0800	.0900	.1000
PHI															
.000	.5227	.6089	.5346	.3601		.2984	.2607	.2268	.1926	.1745		.1611	.1567	.1434	.0000
10.000															.0000
14.000								.0000							.0000
20.000								.0000							.0000
22.000								.0000							.0000
24.500								.0000							.0000
35.000								.0000							.0000
39.000								.0000							.0000
42.500								.0000							.0000
48.000								.0000							.0000
60.000								.0000							.0000
119.000								.0000							.0000
160.000			.0000		.0000			.0000							.0000
X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1760	.1810	.1820	

PHI															
.000	.1395	.1299	.1208	.1091		.1141		.1109	.1104						
10.000		.0000	.0000	.0000											
20.000		.0000	.0000	.0000											
25.500		.0000	.0000	.0000											
40.000		.0000	.0000	.0000											
45.500		.0000	.0000	.0000											
131.200									.0000						
145.400															
146.200									.0000						.0000

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TABULATED DATA LISTING FOR CH48 (AEDC VA392)

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AEDC VA392 CH48 02 ORB. FUSELAGE

(ATK841)

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITTER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8500
PHI															
105.000	.0000				.0000			.0000					.0000		.0000
111.000					.0000										
112.000					.0000										
113.000					.0000										
116.000					.0000			.0000							
135.000	.0000				.0000			.0000							
149.000					.0000										
180.000	.0000				.0000			.0000					.0000		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.2799	.2537	.2395	.2324	.1996	.2013	.1964	.0000		.1870	.0000	.1741			
21.500			.2411												
39.000															
52.500						.0000							.0000		
55.000			.0000												
65.000			.0000												
68.000															
100.000			.0000												
108.000			.0000												
112.000			.0000			.0000									
113.000							.0000		.0000						

AEDC VA352 CH4B 02 CRB. FUSELAGE

(ATK842) (27 APR 74)

REFERENCE DATA

SREF = .0238 SQ.FT. XWRP = .0000 IN.
LREF = 22.5803 IN. YWRP = .0000 IN.
DREF = 16.3919 IN. ZWRP = .0000 IN.
SCALE = .0175 SCALE

BETA	=	.000	RN/L	=	3.720
B.FLAP	=	.000	ELEVON	=	.000
HAW/HT	=	.900			

MACH (1) =	8.000	ALPHA (1) =	30.000	TI =	97.090	QI =	3.937	HREF =	.049
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SECTION (1) CRITER FUSELAGE

DEPENDENT VARIABLE HU/HO

[illegible]

(ATKB42)

AEDC VA332 CH4B 02 CR8. FUSELAGE

$$\text{WACH} (1) = 0.000 \quad \text{ALPHA} (1) = 30.000$$

SECTION (1) ORBITER FUSELAGE

X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0150	1.0140	1.0250	1.0390	1.0500
PH1												
21.500	.2327	.2220	.2070 .2123	.2015	.1705	.1729	.1676	.0000	.1598	.0000	.1566	.0000
39.000												
52.500						.0000						
55.000			.0000									
65.000			.0000									
88.000						.0000						
100.000			.0000									
106.000			.0000			.0000						
112.000							.0000					
113.000									.0000			

WACH (1) =	8.000	ALPHA (2) =	35.000	TI =	97.050	QI =	3.937	HREF =	.049
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SECTION (1) ORBITER FUSELAGE	DEPENDENT VARIABLE HU/HO
1	1.0000
2	1.0000
3	1.0000
4	1.0000
5	1.0000
6	1.0000
7	1.0000
8	1.0000
9	1.0000
10	1.0000
11	1.0000
12	1.0000
13	1.0000
14	1.0000
15	1.0000
16	1.0000
17	1.0000
18	1.0000
19	1.0000
20	1.0000
21	1.0000
22	1.0000
23	1.0000
24	1.0000
25	1.0000
26	1.0000
27	1.0000
28	1.0000
29	1.0000
30	1.0000
31	1.0000
32	1.0000
33	1.0000
34	1.0000
35	1.0000
36	1.0000
37	1.0000
38	1.0000
39	1.0000
40	1.0000
41	1.0000
42	1.0000
43	1.0000
44	1.0000
45	1.0000
46	1.0000
47	1.0000
48	1.0000
49	1.0000
50	1.0000
51	1.0000
52	1.0000
53	1.0000
54	1.0000
55	1.0000
56	1.0000
57	1.0000
58	1.0000
59	1.0000
60	1.0000
61	1.0000
62	1.0000
63	1.0000
64	1.0000
65	1.0000
66	1.0000
67	1.0000
68	1.0000
69	1.0000
70	1.0000
71	1.0000
72	1.0000
73	1.0000
74	1.0000
75	1.0000
76	1.0000
77	1.0000
78	1.0000
79	1.0000
80	1.0000
81	1.0000
82	1.0000
83	1.0000
84	1.0000
85	1.0000
86	1.0000
87	1.0000
88	1.0000
89	1.0000
90	1.0000
91	1.0000
92	1.0000
93	1.0000
94	1.0000
95	1.0000
96	1.0000
97	1.0000
98	1.0000
99	1.0000
100	1.0000

X/L	.0000	.0050	.0100	.0200	.0250	.0300	.0400	.0500	.0600	.0700	.0750	.0800	.0900	.1000
M-1														
.000	.5277	.6060	.5283	.3633		.3013	.2623	.2316	.1942	.1754		.1624	.1560	.1419
10.000								.0000					.0000	.0000
14.000								.0000					.0000	.0000
20.000								.0000					.0000	.0000
22.000								.0000					.0000	.0000
24.500								.0000					.0000	.0000
35.000								.0000					.0000	.0000
39.000								.0000					.0000	.0000
42.500								.0000					.0000	.0000
48.000								.0000					.0000	.0000
60.000								.0000					.0000	.0000
119.000								.0000					.0000	.0000
180.000			.0000		.0000			.0000			.0000		.0000	.0000
X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1810	.1820

PHI	.000	.1398	.1287	.1211	.1115	.1134	.1120	.1105
	10.000				.0000			
	20.000				.0000			
	25.500				.0000			
	40.000				.0000			
	45.500				.0000			
	131.200						.0000	
	145.400							.0000
	146.200							.0000

AEDC VA352 CH4B Q2 CRB. FUSELAGE

(ATK842)

$$\text{MACH} (1) = 0.000 \quad \text{ALPHA} (2) = 35.000$$

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.1200	.1250	.1300	.1400	.1500	.1560	.1600	.1620	.1670	.1690	.1700	.1780	.1800	.1810	.1820
PHI															
156.000														.0000	.0000
159.200															
170.700															
171.900															
173.400															
180.000															
X/L	.1830	.1900	.1910	.2000	.2250	.2300	.2750	.3000	.3250	.3500	.3750	.4000	.4250	.4500	.4750
PHI															
.000	.1136	.1036	.1036	.1036	.0956	.0955	.0872	.0975	.1021	.0947	.0920	.0925	.0916	.0914	.0914
11.500															
12.000															
21.500															
23.000															
24.000															
31.500				.1292			.1071					.0929			
34.000				.1438											
35.000				.1367			.0000								
40.000				.1268			.1135								
45.000							.1087								
51.000				.0000			.0000								
57.500							.0000					.0000			
59.500							.0000								
61.000							.0000								
65.000							.0000								
70.000							.0000								
96.500				.0000								.0000			
103.000							.0000								
106.000							.0000								
135.000												.0000			
140.000				.0000											
141.400	.0000														
151.000			.0000												
180.000				.0000			.0000					.0000			
X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8290
PHI															
.000	.0940	.1516	.1117	.1272	.1806	.1837	.2080	.2342	.2501	.2697	.2835	.2818	.3090	.3116	
21.500	.0994				.1349				.2579				.3003		
63.000	.0000														
64.000															
65.000									.0000						
65.500					.0000									.0000	

AEDC VA352 CH48 Q2 CR8. FUSELAGE (ATK842)

MACH (1) = 8.000 ALPHA (2) = 35.000

SECTION (1) ORBITTER FUSELAGE

DEPENDENT VARIABLE HU/HQ

X/L	.5000	.5250	.5500	.5750	.6000	.6250	.6500	.6750	.7000	.7250	.7500	.7750	.8000	.8250	.8290
PHI															
105.000	.0000				.0000			.0000					.0000		.0000
111.000					.0000										
112.000					.0000										
113.000					.0000										
116.000											.0000				
135.000	.0000				.0000			.0000							
149.000											.0000				
180.000	.0000				.0000			.0000					.0000		
X/L	.8500	.8750	.9000	.9250	.9500	.9750	1.0000	1.0130	1.0140	1.0250	1.0380	1.0500			
PHI															
.000	.2909	.2635	.2472	.2385	.2093	.2098	.2023	.0000		.1891	.0000	.1823			
21.500			.2484												
39.000						.0000	.0000							.0000	
52.500			.0000												
55.000			.0000												
65.000			.0000												
68.000						.0000									
100.000			.0000												
108.000			.0000												
112.000					.0000		.0000								
113.000								.0000							

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 O1+T10 CRB. BOTTOM SURFACE WING (ATKLO1) (27 APR 74)

REFERENCE DATA

SREF = .9236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RM/L = 3.720
 S. FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HI/HO

Z/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0546	.0607		.3464	.6035	.3468	.1327		.3174	.1578	.0442
.002						.5910		.2026				
.003						.3215		.1386				
.004						.2022		.0875				
.005						.1581		.0632				
.006						.1098		.0426				
.007						.0773		.0369				
.025	.0935			.1798	.1939		.2764			.1578		
.050				.0396		.0544	.0750	.0765		.1670		
.100	.0375											
.153												
.177					.0240							
.200			.0172			.0296						
.299	.0350											
.300					.0178	.0215		.0461	.0439	.0770		
.302			.0211									
.303												
.428					.0264		.0398					
.444	.0333											
.487					.0240							
.500							.0403	.0424		.0536		
.559		.0659										
.590	.0256											
.600					.0452	.0393						
.700		.0059			.0431	.0268	.0167		.0229	.0216		
.736	.0000											
.800						.0156	.0133					
.850						.0227	.0137					
.900	.0621		.0231	.0234		.0274	.0105					.0150

DATE 12 DEC 74 TABULATED DATA LISTING FOR CH45 (AEDC VA352)

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 97.600 Q1 = 3.935 HREF = .049
 AEDC VA352 CH45 Q1+T10 CR9. BOTTOM SURFACE WING (ATKLO1)

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HI/HO

ZY/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C
 .001 .0302 .0390 .2924 .5023 .3737 .1367 .1481 .1114 .0416
 .002 .002
 .003 .4829 .2305
 .004 .2787 .1616
 .005 .1783 .1075
 .006 .1340 .0768
 .007 .0968 .0380
 .008 .0510
 .009 .2940
 .010 .1336 .1697
 .011 .0318 .0499 .0730 .0983 .1212
 .012 .0216
 .013 .0237 .0294 .1173
 .014 .0173 .0294
 .015 .0182 .0171 .0516 .0552 .0661
 .016 .0232 .0361
 .017 .0194
 .018 .0088 .0294 .0463 .0567
 .019 .0501
 .020 .0353 .0158 .0215
 .021 .0052 .0348 .0194 .0123 .0322
 .022 .0000
 .023 .0209 .0109
 .024 .0262 .0115
 .025 .0203 .0091 .0207
 .026 .0185 .0234
 .027 .0185 .0234 .0091 .0207
 .028 .0479
 .029 .0185 .0234 .0091 .0207
 .030 .0479
 .031 .0185 .0234 .0091 .0207
 .032 .0479
 .033 .0185 .0234 .0091 .0207
 .034 .0479
 .035 .0185 .0234 .0091 .0207
 .036 .0479
 .037 .0185 .0234 .0091 .0207
 .038 .0479
 .039 .0185 .0234 .0091 .0207
 .040 .0479
 .041 .0185 .0234 .0091 .0207
 .042 .0479
 .043 .0185 .0234 .0091 .0207
 .044 .0479
 .045 .0185 .0234 .0091 .0207
 .046 .0479
 .047 .0185 .0234 .0091 .0207
 .048 .0479
 .049 .0185 .0234 .0091 .0207
 .050 .0479
 .051 .0185 .0234 .0091 .0207
 .052 .0479
 .053 .0185 .0234 .0091 .0207
 .054 .0479
 .055 .0185 .0234 .0091 .0207
 .056 .0479
 .057 .0185 .0234 .0091 .0207
 .058 .0479
 .059 .0185 .0234 .0091 .0207
 .060 .0479
 .061 .0185 .0234 .0091 .0207
 .062 .0479
 .063 .0185 .0234 .0091 .0207
 .064 .0479
 .065 .0185 .0234 .0091 .0207
 .066 .0479
 .067 .0185 .0234 .0091 .0207
 .068 .0479
 .069 .0185 .0234 .0091 .0207
 .070 .0479
 .071 .0185 .0234 .0091 .0207
 .072 .0479
 .073 .0185 .0234 .0091 .0207
 .074 .0479
 .075 .0185 .0234 .0091 .0207
 .076 .0479
 .077 .0185 .0234 .0091 .0207
 .078 .0479
 .079 .0185 .0234 .0091 .0207
 .080 .0479
 .081 .0185 .0234 .0091 .0207
 .082 .0479
 .083 .0185 .0234 .0091 .0207
 .084 .0479
 .085 .0185 .0234 .0091 .0207
 .086 .0479
 .087 .0185 .0234 .0091 .0207
 .088 .0479
 .089 .0185 .0234 .0091 .0207
 .090 .0479
 .091 .0185 .0234 .0091 .0207
 .092 .0479
 .093 .0185 .0234 .0091 .0207
 .094 .0479
 .095 .0185 .0234 .0091 .0207
 .096 .0479
 .097 .0185 .0234 .0091 .0207
 .098 .0479
 .099 .0185 .0234 .0091 .0207
 .100 .0479

MACH (1) = 8.000 ALPHA (3) = .000 TI = 97.600 Q1 = 3.935 HREF = .049

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HI/HO

ZY/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C
 .001 .0221 .0272 .2558 .4097 .3588 .1103 .1564 .1276 .0336
 .002 .4216 .1826
 .003 .2601 .1389
 .004 .1703 .0918
 .005 .1343 .0717
 .006 .0963 .0586
 .007 .0720 .0457
 .008 .2978
 .009 .1274 .1565
 .010 .0352

AEDC VA352 CH4B 01+T10 CRB. BOTTOM SURFACE WING (ATKLO1)

$$\text{MACH} (1) = 0.000 \quad \text{ALPHA} (5) = .000$$

SECTION (1) BOTTOM SURF. WING

.9930
.9660
.9500
.9000
.8500
.7500
.6000
.5000
.4000
.3480
.3010
.2500
Z/B

2

.050	.0377	.0512	.0799	.0950	.1317
.100					.1281
.153	.0181				
.177					
.200	.0229				
.299	.0218	.0291			
.300					
.302		.0182	.0170	.0458	.0589
.303	.0159				
.428			.0414		
.444		.0198			
.487					
.500					
.559			.0347	.0399	.0392
.590	.0137				
.600	.0530				
.6227		.0284	.0153		
.700	.0061	.0314	.0174	.0147	.0281
.736					.0233
.800	.0000				
.850		.0178	.0145		
.900	.0213	.0246	.0157		
.904	.0211	.0230	.0119		
.909					.0181

MACH (1) =	8.000	ALPHA (4) =	5.000	TI	=	97.600	QI	=	3.935	REF	=	.049
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SECTION (1) BOTTOM SURF. WING

	.9660	.9500	.8500	.7500	.6000	.5000	.4000	.3480	.3010	.2500	2Y/B
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3/3

.001	.0462	.0476	.2649	.4068	.3649	.1000	.1600	.1447	.0380
.002				.4430		.1806			
.003				.3109		.1432			
.004				.2068		.1038			
.005				.1662		.0799			
.006				.1216		.0574			
.007				.0909	.3226	.0519			
.025	.0588	.1625	.1788				.1404		
.050							.1371		
.100		.0327		.0649	.1024	.0977			
.155	.0256								
.177			.0353						
.200		.0275		.0392					
.299	.0085								
.300			.0303	.0219		.0457	.0534	.0737	
.302		.0239							

(ATKLO1)

MACH (1) = 8.000 ALPHA (4) = 5.000

SECTION (1) BOTTOM SURF, WING

DEPENDENT VARIABLE H1/H0

X/C	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
.303							.0630					
.428					.0276							
.444	.0224											
.487				.0171								
.500							.0319	.0488		.0460		
.559				.0336								
.590	.0275				.0222	.0219		.0263				
.600				.0085	.0408	.0157	.0207		.0242			
.700												
.736	.0000					.0101	.0221					
.800						.0178	.0212					
.850						.0139	.0172					
.900	.0345			.0365	.0391					.0206		

AEDC VA352 CH48 01+T10 QRB, BOTTOM SURFACE WING (ATKLO2)

MACH (1) =	8,000	BETA (2) =	.000	TI =	97.350	QI =	3.942	HREF =	.049
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SECTION (1) BOTTOM SURF. WING

27/e	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
x/c												
.001	.0221	.0272			.2558	.4097	.3588	.1103		.1564	.1276	.0336
.002					.4216			.1826				
.003					.2601			.1389				
.004					.1703			.0918				
.005					.1343			.0717				
.006					.0963			.0586				
.007					.0720			.0457				
.025	.0352		.1274	.1565			.2978			.1317		
.050			.0377		.0512		.0799	.0950		.1281		
.100	.0181											
.153					.0229							
.177						.0291						
.200			.0218									
.299	.0245				.0182	.0170		.0458	.0494	.0589		
.300												
.302			.0159				.0414					
.303						.0198						
.428												
.444	.0249											
.487												
.500					.0137		.0347	.0399		.0392		
.559			.0530									
.590	.0227											
.600					.0284	.0153			.0281			
.700			.0061		.0314	.0174	.0147			.0233		
.736	.0000											
.800						.0178	.0145					
.850						.0246	.0157					
.900	.0499		.0213	.0211	.0230	.0230	.0119			.0181		

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1+T10 CRB. BOTTOM SURFACE WING

(ATKLOS) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .680
 B.FLAP = .000 ELEVON = .000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HI/HO

ZI/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0445	.0584		.3430	.6015	.4138	.1363		.1887	.1109	.0318
.002						.5608		.2004				
.003						.3030		.1376				
.004						.1894		.0979				
.005						.1473		.0719				
.006						.1015		.0545				
.007						.0765		.0467				
.025	.1107			.1610	.1963		.3146					
.050									.1488			
.100				.0415		.0531	.0728	.0876	.1271			
.153	.0160											
.177					.0253							
.200			.0185			.0329						
.299	.0134											
.300												
.302			.0113		.0150	.0177		.0431	.0481	.0521		
.303							.0382					
.428					.0224							
.444	.0110											
.487					.0068							
.500				.0160			.0283	.0359		.0357		
.559												
.590	.0072											
.600				.0080	.0125				.0155			
.700	.0000	.0039	.0101	.0073	.0107					.0199		
.736						.0035	.0101					
.800						.0046	.0112					
.850						.0052	.0086					
.900	.0232	.0142	.0085								.0151	

WACH (1) = 8.000 ALPHA (2) = -5.000 TI = 93.425 Q1 = .862 HREF = .020
 AEDC VA352 CH4B 01+T10 CRB, BOTTOM SURFACE WING (ATKLO3)

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HI/HO

2Y/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9680 .9930

X/C

.001	.0290	.0364	.2661	.4861	.3612	.1431	.1628	.1206	.0345
.002			.4774	.2279					
.003			.2650	.1565					
.004			.1794	.1027					
.005			.1370	.0792					
.006			.0964	.0567					
.007			.0728	.0502					
.025	.0632		.1198	.1701	.2923		.1456		
.050									
.100			.0355	.0492	.0737	.0979	.1312		
.153	.0128								
.177									
.200			.0154	.0292					
.299	.0134								
.300			.0184	.0173	.0498	.0587	.0693		
.302			.0097						
.303				.0227	.0375				
.428									
.444	.0124		.0063		.0283	.0415	.0428		
.487									
.500									
.559			.0111						
.590	.0096								
.600			.0086	.0127		.0209			
.700	.0000		.0029	.0105	.0069	.0115	.0240		
.736				.0036	.0104				
.800				.0050	.0113				
.850									
.900	.0246		.0144	.0094	.0042	.0091	.0164		

WACH (1) = 8.000 ALPHA (3) = .000 TI = 93.425 Q1 = .862 HREF = .020

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HI/HO

2Y/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9680 .9930

X/C

.001	.0216	.0287	.2482	.4146	.3563	.1080	.1642	.1298	.0339
.002			.4181	.1784					
.003			.2757	.1300					
.004			.1803	.1091					
.005			.1418	.0739					
.006			.0983	.0650					
.007			.0766	.0572					
.025	.0319		.1808	.1971	.3041				

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

(ATKLOS)

MACH (1) = 8.000 ALPHA (4) = 5.000

SECTION (1) BOTTOM SURF, WING DEPENDENT VARIABLE HI/HO

27/5 .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.303							.0536					
.426					.0311							
.444	.0073											
.487				.0267			.0469	.0503		.0482		
.500												
.559			.0124									
.590	.0065								.0196			
.600				.0202	.0224							
.700			.0073	.0142	.0170	.0195				.0296		
.736	.0000											
.800					.0096	.0199						
.850					.0137	.0213						
.900	.0199		.0139	.0071	.0111	.0199				.0255		

AEDC VA352 CH4B 01+T10 CRB. BOTTOM SURFACE WING (ATKLO4) (27 APR 74)

REFERENCE DATA

SREF =	.8236 SQ.FT.	XMRP =	.0000 IN.
LREF =	22.5803 IN.	YMRP =	.0000 IN.
BREF =	16.3919 IN.	ZMRP =	.0000 IN.
SCALE =	.0175 SCALE		

PARAMETRIC DATA

ALPHA	=	.000	RN/L	=	.680
B.FLAP	=	.000	ELEVON	=	.000
HAW/HT	=	.900			

MACH (1) =	8.000	BETA (1) =	-2.000	TI	=	93.550	QI	=	.681	WCF	=	.020
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SECTION (1) BOTTOM SURF. WING

DEPENDENT VARIABLE HI/HO

2Y/8	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9680	.9930
X/C												
.001		.0363	.0459		.3058	.5968	.5080	.1593				
.002						.8578		.2936				
.003						.3743		.1531				
.004						.2328		.0937				
.005						.1801		.0789				
.006						.1292		.0664				
.007						.1016		.0585				
.025	.0548			.1588	.1892		.3070					
.050												
.100				.0474		.0654	.1025	.1103		.1897		
.153	.0163									.1863		
.177												
.200				.0292	.0316							
.299	.0057					.0398						
.300					.0250	.0230		.0581	.0614	.0753		
.302				.0202								
.303												
.428							.0592					
.444	.0039					.0302						
.487												
.500					.0214							
.559												
.590	.0059			.0120			.0550	.0596		.0502		
.600												
.700					.0171	.0216			.0248			
.736	.0000			.0068	.0120	.0167	.0196			.0317		
.800						.0080	.0184					
.850						.0126	.0191					
.900	.0340			.0128	.0060	.0095	.0145					.0220

AEDC VA352 CH4B 01+T10 CRB, BOTTOM SURFACE WING (ATKLOS) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. XMRP = .0000 IN.
LREF = 22.5803 IN. YMRP = .0000 IN.
EREF = 16.3919 IN. ZMRP = .0000 IN.
SCALE = .0175 SCALE

PARAMETRIC DATA

BETA	=	.000	RN/L	=	3.720
B.FLAP	=	.000	ELEVON	=	.000
HAW/HT	=	.900			

```

MACH ( 1 ) = 8.0000 ALPHA ( 1 ) = -10.0000 T1 = 98.067 Q1 = 4.007 HREF = .049

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SECTION (1) BOTTOM SURF. WING

DEPENDENT VARIABLE HI/HO

	.9930	.9660	.9500	.9000	.8500	.7500	.6000	.5000	.4000	.3480	.3010	.2500	27/B
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3/4

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

5125	.0000	.0000	.0000
.025	.0000	.0000	.0000

0.050

[illegible][illegible]

177

00000
00000

	0000	.0000
.	.	.

.299 .0000

.300

256.
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0000, 0000
0000, 0000

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	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2
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AEDC VA352 CH48 01+110 OR2, BOTTOM SURFACE WING (ATKLOS)

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 98.067 Q1 = 4.007 HREF = .049

SECTION (1) BOTTOM SURF. WING

DEPENDENT VARIABLE HI/HO

2Y/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
 .002 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
 .003 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
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 .050 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
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 .153 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
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 .850 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
 .900 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (3) = .000 TI = 98.067 Q1 = 4.007 HREF = .049

SECTION (1) BOTTOM SURF. WING

DEPENDENT VARIABLE HI/HO

2Y/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
 .002 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
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 .007 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000
 .025 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01+110 CR2. BOTTOM SURFACE WING (ATKLOS)

MACH (1) = 8.000 ALPHA (3) = .000

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE H1/H0

2+2	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.090				.0000		.0000	.0000	.0000		.0000		
.100				.0000		.0000	.0000	.0000		.0000		
.153	.0000											
.177				.0000								
.200				.0000		.0000						
.299	.0000											
.300				.0000		.0000		.0000	.0000	.0000		
.302				.0000		.0000		.0000	.0000	.0000		
.303				.0000		.0000		.0000	.0000	.0000		
.428						.0000	.0000					
.444	.0000					.0000						
.487					.0000		.0000	.0000	.0000	.0000		
.500				.0000								
.559												
.590	.0000											
.600					.0000	.0000			.0000			
.700				.0000	.0000	.0000	.0000		.0000	.0000		
.736	.0000											
.800					.0000	.0000	.0000	.0000				
.850					.0000	.0000	.0000	.0000				
.900	.0000			.0000	.0000	.0000	.0000			.0000		

(ATK110) (27 APR 74)

AEDC VA352 CH48 Q1 CRB. BOTTOM SURFACE WING

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B. FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -5.000 TI = 96.800 Q1 = 3.961 MREF = .049

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HQ

Z/HQ	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0195	.0298	.3104	.5314	.2483	.0966		.1355	.1109	.0183	
.002				.4695		.1766						
.003				.2933		.1232						
.004				.2101		.0875						
.005				.1665		.0664						
.006				.1193		.0447						
.007				.0813		.0377						
.025	.0447			.1268	.1886	.2154				.1103		
.050				.0263		.0581	.0746			.0881		
.100						.0510						
.153	.0075											
.177				.0197								
.200				.0114		.0293						
.299	.0021											
.300				.0163	.0216	.0343	.0288	.0391				
.302				.0073			.0325					
.303						.0371						
.428												
.444	.0020											
.497				.0430			.0229	.0326	.0211			
.500												
.559				.0030								
.590	.0044								.0139			
.600				.0226	.0161							
.700				.0028	.0172	.0206	.0085			.0115		
.736	.0085					.0105	.0072					
.800						.0114	.0086					
.850						.0087	.0069					
.900	.0036			.0011	.0052	.0087	.0069			.0111		

MACH (1) = 8.000 ALPHA (2) = .000 TI = 96.800 QI = 3.961 HREF = .049
 AEDC VA352 CH4B O1 CR9. BOTTOM SURFACE WING (ATKL10)

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0452	.0517		.3359	.5510	.3029	.1004		.1900	.1264	.0336
.002						.5186		.1829				
.003						.3488		.1393				
.004						.2548		.1042				
.005						.2056		.0787				
.006						.1488		.0565				
.007						.1041		.0484				
.025	.0593			.1876	.2255		.2669					
.050				.0513		.0660	.0788	.0902		.1259		
.100										.1250		
.153	.0235											
.177					.0310							
.200	.0153			.0261		.0383						
.299												
.300				.0347	.0356		.0382	.0412	.0529			
.302				.0206								
.303							.0578					
.428						.0599						
.444	.0115											
.487					.0545							
.500				.0207			.0794	.0362		.0288		
.559												
.590	.0092											
.600					.0442	.0435			.0141			
.700				.0182	.0319	.0330	.0288			.0153		
.736	.0122											
.800						.0165	.0250					
.850						.0193	.0264					
.900	.0058			.0076	.0127	.0153	.0204				.0125	

(ATKLL11) (27 APR 74)

AEDC VA352 CH48 01 CRB. BOTTOM SURFACE WING

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CRREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .680
 B. FLAP = .000 ELEVON = .000
 HAW/HT = .900

WACH (1) = 8.000 ALPHA (1) = -5.000 TI = 93.000 Q1 = .677 WREF = .020

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

Z/H	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C	.001	.0212	.0317	.03030	.5304	.3117	.1056	.1396	.1124	.0219		
.002				.4746	.2988	.1248	.0927					
.003				.2988	.2112	.1692	.0673					
.004				.2112	.1692	.1202	.0498					
.005				.1692	.1202	.0813	.2383					
.006				.1202	.0813	.0510	.0678	.0750		.1092	.1090	
.007	.0354			.1219	.1924	.0218						
.025				.0305		.0136						
.050						.0136						
.100						.0159	.0173	.0374	.0343	.0410		
.153	.0117					.0098						
.177								.0365				
.200	.0050							.0194				
.299												
.303												
.302												
.303												
.428												
.444	.0035											
.487								.0185				
.500												
.559								.0053				
.590	.0023											
.600								.0118	.0108			
.703								.0046	.0094	.0099	.0101	.0123
.736	.0028											
.800								.0053	.0082			
.850								.0068	.0096			
.900	.0013							.0023	.0049	.0061	.0080	.0127

AEDC VA352 CH4B 01 CRB, BOTTOM SURFACE WING (ATK12) (27 APR 74)

REFERENCE DATA

SREF =	.0238 SQ.FT.	XGRP =	.0000 IN.
LYEF =	22.5803 IN.	YGRP =	.0000 IN.
ZREF =	16.3919 IN.	ZGRP =	.0000 IN.
SCALE =	.0175 SCALE		

BETA	=	.000	RN/L	=	.500
B, FLAP	=	.000	ELEVON	=	.000
HAW/HT	=	.900			

PARAMETRIC DATA

MACH (1) =	8.000	ALPHA (1) =	25.000	TI =	93.400	QI =	.524	HREF =	.018
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SECTION (1) BOTTOM SURF. WING

[illegible]

MACH: (1) =	8.000	ALPHA (2) =	30.000	T1	=	93.400	Q1	=	.524	HREF	=	.018
AEDC VA352 CH4B Q1 CRB, BOTTOM SURFACE WING (ATK12)												

SECTION (1) BOTTOM SURF. WING

24/5	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0578	.0369		.4650	.3153	.3482	.0893		.1533	.1074	.0415
.002						.4215		.2004				
.003						.3827		.1964				
.004						.4159		.1845				
.005						.3450		.1695				
.006						.3534		.1591				
.007						.2892		.1264				
.025	.0545			.2099	.4371		.3655					
.050												
.100				.1737		.1958	.2027	.2292		.1494		
.155	.1202									.1520		
.177					.1270							
.200			.1155			.1448						
.299	.0786											
.300					.1176	.1131		.0990	.1366	.1424		
.302			.1000									
.303							.1202					
.428						.1244						
.444	.0691											
.487					.1211							
.500							.1060	.1044		.0983		
.559			.0791									
.590	.0530											
.600					.0871	.0805			.0514			
.700				.0727	.0767	.0656	.0921					
.736	.0608									.0547		
.800						.0394	.0461					
.850						.0539	.0608					
.900	.0225			.0425	.0561	.0491	.0538					.0562

MACH (1) =	8.000	ALPHA (3) =	35.000	TI	=	93.400	QI	=	.524	HREF	=	.018
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SECTION (1) BOTTOM SURF. WING

27/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0742	.0336		.4257	.3828	.3169	.0772		.1343	.0914	.0431
.002						.5423		.1742				
.003						.5171		.1760				
.004						.5396		.1699				
.005						.4573		.1605				
.006						.4170		.1408				
.007						.3439		.1326				
.025	.0542			.1850	.4145		.3446					

AEDC VA352 CH4B 01 CRB, BOTTOM SURFACE WING (ATKL12)

MACH (1) = 8.000 ALPHA (3) = 35.000

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

27/S	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.050												
.100				.1828		.2382	.2268	.2210		.1302		
.153	.1219									.1313		
.177					.1315							
.200				.1250		.1683						
.299	.0896				.1156	.1175		.1345	.1470	.1345		
.300												
.302				.1043			.1352					
.303						.1501						
.428												
.444	.0838											
.487					.1482		.1210	.1177		.1098		
.500				.0863								
.559												
.590	.0659				.0911	.0813			.0616			
.600				.0776	.0774	.0772	.0616			.0716		
.703												
.736	.0721											
.800					.0437	.0590	.0590					
.850					.0636	.0729	.0636					
.900	.0284			.0487	.0589	.0580	.0658			.0690		

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TABULATED DATA LISTING FOR CH48 (AEDC VA332)

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AEDC VA352 CH48 O1 ORB. BOTTOM SURFACE WING (ATK113) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 1.000
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 94.100 Q1 = 1.003 HREF = .025

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

27/8 .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9680 .9930

X/C

.001	.0691	.0358	.4614	.3075	.3408	.0857	.1506	.1066	.0556
.002			.4226	.3791	.1910	.2008			
.003				.4132	.1794	.1910			
.004				.3370	.1645	.1794			
.005				.3472	.1386	.1645			
.006				.2787	.1243	.1386			
.007									
.025		.1948	.4360		.3452				
.050							.1460		
.100		.1717		.1928	.1923	.2242	.1484		
.153		.1145							
.177				.1191					
.200		.1180		.1423					
.299		.0806							
.300				.1129	.1150	.1698	.1469	.1375	
.302		.1002							
.303						.1224			
.428				.1238					
.444		.0690							
.487				.1164					
.500						.1038	.1728	.1304	
.559		.0782							
.590		.0524							
.600				.0876	.0786		.1202		
.700		.0756	.0774	.0623	.0527			.1191	
.736		.0589							
.800				.0354	.0436				
.830				.0520	.0604				
.900		.0236	.0431	.0544	.0479	.0534			.1083

AEDC VA352 CH4B 01		CRP. BOTTOM SURFACE WING		(ATK13)
MACH (1) =	8.000	ALPHA (2) =	35.000	T1 = 94.100 Q1 = 1.003 HREF = .025

SECTION (1) BOTTOM SURF. WING

27/8	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
x/c												
.001		.0716	.0356		.4212	.3784	.3108	.0765		.1306	.0974	.0606
.002						.5335		.1683				
.003						.5038		.1673				
.004						.5186		.1584				
.005						.4518		.1486				
.006						.4173		.1298				
.007						.3427		.1192				
.025	.0545			.1812	.4150		.3338			.1324		
.050				.1792		.2344	.2264	.2104		.1356		
.100												
.153	.1268			.1230	.1219	.1646						
.177												
.200												
.299	.0903				.1121	.1200		.1275	.1824	.1941		
.300				.1045								
.302							.1293					
.303						.1508						
.428												
.444	.0806				.1389							
.487							.1177	.1164		.1583		
.500				.0845								
.559												
.610	.0610				.0915	.0802			.0633			
.600				.0767	.0771	.0713	.0829			.0857		
.700												
.756	.0685											
.800						.0404	.0318					
.850						.0614	.0736					
.900	.0286			.0498	.0802	.0565	.0847			.0729		

MACH (1) =	8.000	ALPHA (3) =	40.000	TI =	94.100	OT =	1.003	KREF =	.025
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SECTION (1) BOTTOM SURF. WING

27/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0747	.0361		.3751	.3577	.2986	.0647		.1137	.0852	.0512
.002						.4756		.1460				
.003						.5270		.1526				
.004						.5014		.1560				
.005						.4622		.1518				
.006						.4043		.1401				
.007						.3490		.1340				
.025	.0572			.1758	.3789		.3239					

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 O1 ORB. BOTTOM SURFACE WING (ATKLI3)

MACH (1) = 8.000 ALPHA (3) = 40.000

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

Z/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9860	.9930
X/C												
.090												
.100				.1786		.2579	.2380	.2222		.1180		
.153	.1383									.1220		
.177					.1187							
.200				.1275		.1701						
.299	.1043											
.300					.1109	.1203	.1436	.1567	.1440			
.302				.1108								
.303						.1409	.1375					
.428												
.444	.0902											
.487					.1533		.1312	.1500	.1227			
.500				.0860								
.559												
.590	.0726				.0970	.0827			.0677	.0812		
.600				.0835	.0832	.0772	.0703					
.700												
.736	.0826											
.800					.0451	.0566						
.850					.0724	.0837						
.900	.0340			.0544	.0654	.0686	.0770			.0818		

(ATK14) (27 APR 74)

AEDC VA352 CH4B 01 CRB. BOTTOM SURFACE WING

REFERENCE DATA

SRP = .8256 SO. FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BRP = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 2.000
 B. FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.550 QI = 1.994 HREF = .035

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

21/8	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0649	.0351	.4645	.3073	.3268	.0931	.1470	.1048	.0773		
.002				.4107	.3691	.1927	.2010					
.003				.3691	.4069	.1843	.1927					
.004				.3405	.3405	.1723	.1843					
.005				.3463	.3463	.1539	.1723					
.006				.2808	.2808	.1466	.1539					
.007				.1876	.4335	.3538	.1466					
.025				.1712	.1926	.2407	.2391					
.050												
.100												
.153												
.177												
.200												
.299												
.300												
.302												
.303												
.428												
.444												
.487												
.500												
.559												
.590												
.600												
.703												
.736												
.800												
.890												
.900												

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.550 Q1 = 1.994 HREF = .035
 SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/H0 (ATK114)

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9660	.9930
X/C		.0680	.0359		.4195	.3759	.2947	.0749		.1534	.0967
.001						.5305		.1700			
.002						.5066		.1760			
.003						.5284		.1689			
.004						.4645		.1746			
.005						.4144		.1538			
.006						.3436		.1530			
.007											
.025	.0560			.1796	.4036		.3184				
.050											
.100				.1797		.2332	.2251	.2889		.1664	.1834
.153	.1200										
.177					.1195						
.200				.1216							
.299	.0694					.1658					
.300											
.302				.1055	.1148	.1277		.1848	.4001	.3076	
.303											
.428											
.444	.0782					.1545					
.487					.1464						
.500											
.599				.0937			.1206	.1185		.2674	
.600	.0647										
.700				.0907	.0846	.0703	.0646		.0818		
.736	.0995									.1703	
.800					.0380	.0497					
.850					.0997	.0754					
.900	.0586			.0644	.0725	.0601	.0691				.1039

AEDC VA352 CH48 O1 OR8. BOTTOM SURFACE WING (ATKLI5) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.867 OI = 3.955 HREF = .049

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE MU/HO

ZY/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9680	.9930
X/C												
.001		.0601	.0353	.4683	.3455	.4015	.0990		.1615	.1115	.0580	
.002				.3565	.3737		.2146					
.003					.3104		.2024					
.004					.2943		.1869					
.005					.2575		.1666					
.006					.2100		.1379					
.007							.1240					
.025	.0905			.1971	.4481		.4174					
.050				.1659		.1549	.3386	.2182		.1484	.1484	
.100	.0968											
.153					.1185							
.177												
.200				.1055		.0950						
.299	.0661											
.300					.1425	.1645	.2398	.1252	.1234			
.302				.0875								
.303						.3514	.4081					
.428												
.444	.0552				.4236							
.487												
.500				.0879		.4113	.3262		.1161			
.559												
.590	.0484				.2066	.1084			.1311			
.600				.1073	.2558	.2477	.1641					
.700												
.736	.1032				.1425	.1618						
.800					.1786	.1874						
.850												
.900	.0741			.0864	.1507	.1506	.1525				.1242	

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.867 Q1 = 3.955 HREF = .049
 AEDC VA352 CH4B Q1 CR8. BOTTOM SURFACE WING (ATK115)

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

ZY/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9680 .9930

X/C

.001	.0624	.0347	.4885	.3184	.4567	.0981	.1523	.1294	.0875
.002			.4287			.2104			
.003			.3780			.2109			
.004			.4229			.2230			
.005			.3475			.2195			
.006			.3645			.2338			
.007			.2940			.2347			
.025	.0363		.1888	.4394	.5231				
.050			.1763	.2033	.4699	.3419	.1534		
.100	.1075						.1632		
.177			.1255						
.200			.1267						
.299	.0784			.1693					
.300			.1381	.1444	.4588	.3739	.2939		
.302			.1154						
.303					.1719				
.428				.1589					
.444	.0742								
.487			.3019		.2642	.4629	.2357		
.500									
.559			.1865						
.590	.1116		.2073	.1247		.1929			
.600			.2069	.2241	.2198	.1907	.1938		
.700	.2618								
.736				.1412	.1917				
.800				.1885	.2281				
.850			.1611	.1540	.1632	.1877	.1751		
.900	.1115								

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.867 Q1 = 3.955 HREF = .049

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

ZY/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9680 .9930

X/C

.001	.0672	.0377	.4416	.3979	.3097	.0875	.2097	.1586	.1171
.002			.5454			.2284			
.003			.5441			.2361			
.004			.5685			.2723			
.005			.4960			.3003			
.006			.4695			.2801			
.007			.3985			.2922			
.025	.0576		.1934	.4306	.3457				

AEDC VA352 CH48 01 CRB. BOTTOM SURFACE WING (ATK115)

MACH (1) = 8.000 ALPHA (3) = 35.000

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

Z/H	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.090				.2150		.2869	.2824	.5035		.2091		
.100										.2248		
.153	.1206											
.177					.1728							
.200				.1863		.2217						
.299	.0910											
.300					.2037	.1822		.5099	.5186	.3672		
.302				.2080								
.303						.2454		.2068				
.428												
.444	.1324				.3606							
.487							.1957	.4925		.3204		
.500				.3287								
.559												
.590	.2455											
.600				.2878	.2150				.2022			
.700				.2945	.2805	.2496	.1268			.2394		
.736	.3781											
.800					.1705	.1971						
.850					.2198	.2658						
.900	.1302			.2066	.1922	.1925	.2238			.2011		

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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(ATK117) (27 APR 74)

AEDC VA352 CH48 Q1 CRB. BOTTOM SURFACE WING

REFERENCE DATA

SRCP = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DRFP = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RNL = 3.720
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 97.700 Q1 = 3.949 HREF = .049

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

21/8 .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0628	.0362	.4647	.3191	.4579	.0992	.1498	.1277	.1101
.002			.4296	.2121					
.003			.3809	.2135					
.004			.4207	.2252					
.005			.3475	.2219					
.006			.3650	.2341					
.007			.2966	.2331					
.025	.0558	.1835	.4433	.5268					
.050							.1518		
.100	.1066	.1807		.2037	.4736	.3408	.1594		
.177									
.200		.1260	.1255	.1647					
.299	.0751								
.300									
.302		.1169	.1379	.1472	.4557	.3720	.2983		
.303									
.428				.1642	.1536				
.444	.0759		.3142						
.487					.2738	.4674	.2369		
.500		.1908							
.559									
.590	.1104								
.600		.2136	.2222	.1325		.1925			
.700			.2486	.2201	.1680				
.736	.2601						.2449		
.800				.2107	.2719				
.850				.2755	.3177				
.900	.1429	.2339	.2356	.2427	.2687				.2270

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 97.700 QI = 3.949 HREF = .049
 AEDC VA352 CH48 O1 CEB. BOTTOM SURFACE WING (ATK117)

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

27/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C	.0671	.0367	.4426	.3960	.3240	.0898	.1971	.1538	.1396			
.001												
.002												
.003												
.004												
.005												
.006												
.007												
.025												
.050												
.100												
.153												
.177												
.200												
.299												
.300												
.302												
.303												
.428												
.444												
.487												
.500												
.559												
.590												
.600												
.700												
.736												
.800												
.850												
.900												



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TABULATED DATA LISTING FOR OH48 (AEDC VA352)

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AEDC VA352 OH48 01 ORB. BOTTOM SURFACE WING (ATKLI8) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RN/L = 3.720
 S.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 97.200 Q1 = 3.933 HREF = .049

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

2Y/8	.2900	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0804	.0420		.5323	.3292	.4638	.0969		.2354	.1694	.0777
.002					.4339	.2692		.2692				
.003					.4314	.2476		.2476				
.004					.4203	.2189		.2189				
.005					.3708	.1848		.1848				
.006					.3379	.1506		.1506				
.007					.2739	.1361		.1361				
.025	.0704			.2333	.4848		.4782			.2176		
.050				.1936		.1998	.2215	.2429		.2212		
.100	.1338											
.153												
.177					.1555							
.200				.1335		.1418						
.299	.0878											
.300					.1365	.1067		.1234	.1353	.1455		
.302				.1157								
.303								.2651				
.428					.1215							
.444	.0806											
.487					.1410							
.500				.1397			.3680	.1526		.1133		
.559												
.590	.0919											
.600					.1382	.0985			.1092			
.700				.1573	.1432	.0815	.1844			.0918		
.736	.1972											
.800					.0814	.3046						
.890					.1326	.3210						
.900	.1790			.2187	.2164	.1446	.2784					.1991

AEDC VA352 CH48 O1 ORB. BOTTOM SURFACE WING (ATKLI8)

MACH (1) = 0.000 ALPHA (2) = 35.000 TI = 97.200 Q1 = 3.933 HREF = .049

SECTION (1) BOTTOM SURF. WING

DEPENDENT VARIABLE HU/HO

2Y/B .2900 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0833	.0499	.4750	.3390	.3375	.0976	.1965	.1679	.1315
.002			.4670	.4691	.2392	.2175			
.003				.3025	.2635				
.004				.4510	.2802				
.005				.4381	.2923				
.006				.3767	.2994				
.007									
.025	.0818	.2259	.4695		.3650				
.050							.2107		
.100		.2140	.2961	.2953	.4568		.2268		
.153	.1466								
.177		.1515							
.200		.1522		.2257					
.299	.0971								
.300		.1503	.1737		.5216	.4571	.3221		
.302		.1330							
.303					.2084				
.428			.2284						
.444	.0961								
.487									
.500		.3056		.2064	.3578		.2914		
.559		.1598							
.590	.1229								
.600			.2682	.1889		.2046			
.700		.1812	.2556	.2149	.1064		.2809		
.736	.2363								
.800				.1954	.1263				
.850				.2635	.1801				
.900	.1692	.2146	.2502	.2422	.1599		.2667		

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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(ATKLI9) (27 APR 74)

AEDC VA352 CH48 Q1 CRB. BOTTOM SURFACE WING

REFERENCE DATA

SREF = .8238 SQ. FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RM/L = 2.000
 S. FLAP = 10.000 ELEVON = 5.000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.850 QI = 1.983 HREF = .035

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

XY/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0922	.0462		.5646	.3425	.4403	.0917		.1963	.1394	.0769
.002					.4502			.2454				
.003					.4629			.2312				
.004					.4181			.2075				
.005					.3761			.1819				
.006					.3171			.1468				
.007					.2687			.1338				
.025	.0833			.2537	.5082		.4466					
.050				.1995		.2111	.2213	.2437		.1875	.1887	
.100												
.153	.1398				.1482							
.177				.1302		.1415						
.200												
.299	.0927											
.300				.1063		.1398	.0998	.1260	.1454	.1552		
.302												
.303							.3364					
.428					.1156							
.444	.0816											
.487					.1177							
.500							.2138	.2313		.1195		
.599				.0885								
.590	.0617											
.600					.0942	.0922			.0586			
.700				.0878	.0816	.0645	.0646			.0706		
.736	.0759											
.800					.0440	.0638						
.850					.0790	.0907						
.900	.1143			.0701	.0645	.0707	.0798			.0872		

AEDC VA352		CH4B Q1		ORB. BOTTOM SURFACE WING		(ATKLL19)
MACH (1) =	6.000	ALPHA (2) =	35.000	T1 =	95.650 Q1 =	1.983 MREF = .039

SECTION (1) BOTTOM SURF. WING

[illegible]

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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(ATK120) (27 APR 74)

AEDC VA352 CH48 Q1 CRB. BOTTOM SURFACE WING

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RM/L = 2.000
 B. FLAP = 10.000 ELEVON = 5.000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.900 QI = 1.980 HREF = .035

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

ZY/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0641	.0355		.4663	.3022	.3291	.0902		.1499	.1081	.1008
.002					.4114			.1991				
.003					.3802			.1931				
.004					.3998			.1848				
.005					.3364			.1718				
.006					.3456			.1574				
.007					.2801			.1494				
.025	.0554			.1909	.4351		.3603					
.050				.1728		.1932	.2438	.2396		.1472	.1493	
.100	.1127											
.153					.1191							
.177				.1170		.1407						
.200	.0803											
.299												
.300				.1169	.1210		.3540	.2096	.1624			
.302				.0984								
.303							.1254					
.428					.1231							
.444	.0660											
.487					.1112							
.500				.0801			.1051	.3381	.1930			
.559												
.990	.0508											
.600				.0890	.0783				.1526			
.700				.0762	.0822	.0566	.0518					
.736	.0720											
.800				.0350	.0475							
.850				.0697	.0781							
.900	.1144			.0648	.0841	.0646	.0729					.1793

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.900 QI = 1.980 HREF = .035
 AEDC VA352 CH48 01 CR8, BOTTOM SURFACE WING (ATKLR20)

SECTION (1) BOTTOM SURF. WING

DEPENDENT VARIABLE HU/HO

Z/B	.2930	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0665	.0364	.4229	.3810	.3010	.0719		.1535	.1357		.1266
.002				.5308			.1668					
.003				.5057			.1782					
.004				.5285			.1669					
.005				.4565			.1733					
.006				.4241			.1494					
.007				.3461			.1498					
.025	.0994			.1799	.3990		.3212				.1686	
.050				.1800		.2295	.2219	.2822			.1862	
.100												
.153	.1233											
.177				.1177								
.200				.1256		.1653						
.299	.0893											
.300				.1155	.1263		.1839	.3880	.3016			
.302				.1057								
.303					.1556		.1252					
.428												
.444	.0758											
.487				.1422			.1198	.1211	.2603			
.500												
.559				.0909								
.590	.0663			.0971	.0825		.0778					
.600				.0896	.0858	.0690	.0611				.2181	
.700												
.756	.1021				.0411	.0531						
.800					.0822	.0938						
.850					.0794	.0858						
.900	.1451			.0687	.0942						.1355	

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TABULATED DATA LISTING FOR CH4B (AEDC VA352)

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AEDC VA352 CH4B 01 ORB. BOTTOM SURFACE WING (ATK121) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RV/L = .500
 B-FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 6.000 ALPHA (1) = 30.000 TI = 91.950 Q1 = .518 HREF = .017

SECTION (1) BOTTOM SURF. WING

DEPENDENT VARIABLE HU/HO

27/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0955	.0489		.5719	.3588	.4481	.0999		.1998	.1454	.0745
.002					.4595		.2488					
.003					.4658		.2368					
.004					.4260		.2118					
.005					.3878		.1861					
.006					.3227		.1538					
.007					.2738		.1416					
.025	.0837			.2726	.5229		.4568			.1965		
.050			.2038			.2161	.2138	.2458		.2012		
.100												
.153	.1408				.1544							
.177				.1343		.1407						
.200												
.299	.0918											
.300					.1389	.0930		.1244	.1489	.1655		
.302			.1126									
.303							.1011					
.428						.1164						
.444	.0825											
.487					.1250							
.500							.1103	.1276		.1275		
.559		.0939										
.590	.0656											
.600					.0998	.0965			.0573			
.700			.0875	.0843	.0690	.0516				.0860		
.736	.0729											
.800					.0535	.0680						
.850					.0785	.0809						
.900	.0627		.0689	.0633	.0702	.0705				.0892		

WACH (1) = 0.000 ALPHA (2) = 35.000 TI = 91.950 Q1 = .518 HREF = .017
 AEDC VA332 CH4B Q1 ORB. BOTTOM SURFACE WING (ATKLR21)

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

27/2 .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0964	.0500	.4940	.3509	.3635	.0898	.1714	.1332	.0704
.002			.4262	.4262	.2060				
.003			.4496	.4496	.2059				
.004			.4357	.4357	.1965				
.005			.4025	.4025	.1863				
.006			.3699	.3699	.1607				
.007			.3106	.3106	.1473				
.025	.0807	.2439	.4770	.3869			.1737		
.050		.2099		.2291	.2315	.2651	.1782		
.100									
.153	.1324								
.177			.1577						
.200		.1467	.1547						
.299	.1015								
.300			.1391	.1078	.1163	.1668	.1610		
.302		.1237							
.303					.1364				
.428			.1287						
.444	.0922								
.487			.1363		.1246	.1193	.1166		
.500		.0962							
.590	.0744								
.600			.1145	.1065		.0902	.0674		
.700		.0930	.0934	.0748	.0582				
.736	.0840								
.800			.0526	.0576					
.850			.0874	.0928					
.900	.0806	.0756	.0716	.0842	.0647		.0818		

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TABULATED DATA LISTING FOR CH48 (AEDC VA332)

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AEDC VA332 CH48 Q1 CRB. BOTTOM SURFACE WING (ATKLE2) (27 APR 74)

REFERENCE DATA

SREF = .9238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = .900
 B.FLAP = 10.000 ELEVON = 3.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 93.400 Q1 = .923 HREF = .018

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

Z/H	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0681	.0356		.4653	.3184	.3724	.0875		.1552	.1132	.0448
.002					.4350			.1995				
.003					.3853			.1966				
.004					.4188			.1822				
.005					.3479			.1676				
.006					.3569			.1387				
.007					.2840			.1264				
.025	.0000			.1946	.4327		.3605					
.090				.1755		.1983	.2025	.2236	.1530			
.100		.1147							.1538			
.153												
.177					.1273							
.200				.1179		.1438						
.299	.0808											
.300					.1195	.1125	.0977	.1374	.1433			
.302				.0995								
.303							.1243					
.428					.1275							
.444	.0722											
.487					.1337							
.500							.1089	.1100		.0945		
.559				.0818								
.590	.0571											
.600					.0890	.0817						
.700		.0753	.0786	.0699	.0510		.0502			.0710		
.736	.0601											
.800			.0440	.0626								
.850			.0798	.0799								
.900	.0402	.0574	.0683	.0665	.0746					.0771		

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 93.400 Q1 = .523 HREF = .018
 AEDC VA332 CH4B 01 CRB. BOTTOM SURFACE WING (ATK22)

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/H0

21/2 .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0750	.0369	.4256	.3880	.3244	.0768	.1321	.0943	.0547
.002			.5367	.5226	.1730	.1742			
.003			.5310	.4547	.1604	.1703			
.004			.4270	.3513	.1329	.1418			
.005									
.006									
.007									
.025	.0000		.1893	.4116	.3440				
.050			.1828	.2417	.2302	.2248	.1340		
.100	.1314						.1341		
.153									
.177			.1275						
.200			.1261	.1680					
.299	.0936								
.300			.1177	.1172	.1378	.1476	.1329		
.302			.1040						
.303					.1328				
.428				.1453					
.444	.0835								
.487									
.500				.1453	.1239	.1246	.1089		
.559			.0859						
.590	.0651								
.600			.0940	.0829	.0586	.0608			
.700			.0783	.0787	.0763		.0862		
.736	.0724								
.800				.0478	.0610				
.850				.0778	.0923				
.903	.0587		.0630	.0842	.0738	.0864	.0863		

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 CRB. BOTTOM SURFACE WING (ATK123) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = .500
 B. FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 93.433 Q1 = .521 HREF = .018

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

Z/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0647	.0358		.5010	.3289	.3746	.0998		.1694	.1155	.0401
.002					.3597		.2143					
.003					.3712		.2000					
.004					.3230		.1852					
.005					.2918		.1669					
.006					.2620		.1384					
.007					.2134		.1237					
.025	.0541		.2139	.4444			.3862					
.050			.1695		.1504	.1852	.2232			.1594		
.100	.0982									.1567		
.153												
.177						.1222						
.200			.1072		.0980							
.299	.0697											
.300					.1186	.0871	.1104	.1302	.1341			
.302			.0886									
.303							.0952					
.428					.1003							
.444	.0616											
.487					.1091							
.500							.0961	.0907		.1046		
.529			.0742									
.590	.0480											
.600					.0937	.0803			.0568			
.700			.0695	.0805	.0577	.0419						
.736	.0513											
.800					.0449	.0558						
.850					.0901	.0958						
.900	.0746		.0752	.0974	.0872	.0902						.1012

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 93.433 Q1 = .521 HREF = .018
 AEDC VA352 CH48 01 ORB. BOTTOM SURFACE WING (ATK123)

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

2Y/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0690	.0364	.4685	.3170	.3509	.0883	.1548	.1123	.0318
.002			.3509	.3509	.2024				
.003			.3915	.1970					
.004			.4210	.1828					
.005			.3531	.1699					
.006			.3575	.1399					
.007			.2871	.1276					
.025			.1984	.4365	.3647				
.050						.1549			
.100			.1753	.1954	.2072	.2279	.1552		
.153									
.177			.1286						
.200			.1169	.1445					
.299				.1107	.1062	.1399	.1462		
.302			.0986						
.303				.1264	.1204				
.428									
.444			.1290						
.487					.1077	.1135	.0972		
.500			.0788						
.559									
.590			.0890	.0805	.0537	.0573			
.600			.0763	.0786	.0630	.0511			
.700									
.736			.0993	.0405	.0655				
.800				.0938	.1140				
.850			.0808	.1040	.0907	.1083	.1095		
.900									

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 93.433 Q1 = .521 HREF = .018

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

2Y/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0749	.0367	.4285	.3842	.3270	.0786	.1362	.0923	.0401
.002			.5595	.5595		.1761			
.003			.5151	.5151		.1743			
.004			.5336	.5336		.1692			
.005			.4588	.4588		.1584			
.006			.4226	.4226		.1423			
.007			.3489	.3489		.1305			
.025			.1695	.4094	.3451				

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AEDC VA352 CH48 01 CR8. BOTTOM SURFACE WING (ATKLE3)

MACH (1) = 8.000 ALPHA (3) = 35.000

SECTION (1) BOTTOM SURF. WING

DEPENDENT VARIABLE HU/HO

21/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.050				.1812		.2391	.2296	.2207			.1361	
.100											.1358	
.153	.1283											
.177					.1295							
.200				.1254		.1670						
.299	.0921											
.300												
.302					.1154	.1198		.1326	.1465	.1591		
.303				.1055			.1554					
.428						.1472						
.444	.0820											
.487					.1456							
.500							.1258	.1284		.1117		
.559				.0861								
.590	.0665											
.600					.0931	.0814			.0630			
.700				.0786	.0792	.0686	.0583				.0630	
.736	.0718											
.800						.0373	.0707					
.850						.0955	.1244					
.900	.1049			.0829	.1069	.0933	.1238				.1060	

AEDC VA352 CH48 01 ORB. BOTTOM SURFACE WING (ATK124) (27 APR 74)

REFERENCE DATA

SREF =	.0236 SQ.FT.	XMRP =	.0000 IN.
LYEF =	22.5803 IN.	LYRP =	.0000 IN.
GRF =	16.3919 IN.	ZMRP =	.0000 IN.
SCALE =	.0173 SCALE		

PARAMETRIC DATA

BETA = -5.000 RNL = .500
B.FLAP = 10.000 ELEVON = 10.000
HAW/HT = .900

WACH: (1) =	8.000	ALPHA (1) =	25.000	YI	=	93.233	QI	=	.523	WREF	=	.018
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SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

27/8	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0911	.0548		.5664	.3791	.4431	.1108		.2229	.1806	.0541
.002						.4637		.2513				
.003							.4431	.2313				
.004						.4002		.2040				
.005								.1795				
.006						.3152		.1420				
.007						.2604		.1265				
.025	.0639			.2886	.4901		.4435					
.090										.2092		
.100				.1939		.1899	.2026	.2281		.2061		
.153	.1220											
.177					.1301							
.200				.1193		.1329						
.299	.0813											
.300					.1223	.0830		.1177	.1241	.1333		
.302				.0968								
.303							.1094					
.428						.1074						
.444												
.487	.0721				.1056							
.500							.0728	.1053		.1033		
.559				.0649								
.590	.0562											
.603					.0882	.0787			.0880			
.700				.0812	.0732	.0584	.0362			.0543		
.736	.0617											
.805						.0494	.0644					
.850						.0921	.0929					
.900	.0682			.0881	.0820	.0904	.0841					.0920

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 93.233 QI = .523 HREF = .018
 (ATKLE24)

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

21/8	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001	.0906	.0496		.5642	.3225	.4439	.0989			.1996	.1409	.0474
.002				.4505	.2456							
.003				.4648	.2335							
.004				.4196	.2102							
.005				.3825	.1845							
.006				.3200	.1507							
.007				.2659	.1389							
.025	.0811			.2634	.5116	.4490						
.050												
.100				.2005	.2098	.2172	.2437			.1912	.1907	
.153	.1336											
.177				.1531								
.200					.1365							
.299	.0917											
.300				.1354	.0913	.1335	.1512	.1658				
.302				.1097								
.303						.0985						
.428					.1142							
.444	.0852											
.487				.1248		.1126	.1513	.1302				
.500												
.559				.0933								
.590	.0668								.0606			
.600				.0984	.0953							
.700				.0882	.0831	.0671	.0513	.0599				
.736	.0723											
.800					.0566	.0494						
.850					.1034	.1083						
.900	.1130			.0991	.0889	.1001	.0971	.1056				

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 93.233 QI = .523 HREF = .018

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

21/8	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001	.0934	.0481		.4903	.3261	.3606	.0923			.1686	.1335	.0447
.002					.4204							
.003					.4464	.2020						
.004					.4351	.1932						
.005					.3944	.1827						
.006					.3612	.1573						
.007					.3061	.1438						
.025	.0802			.2593	.4759	.3746						

(ATKL25) (27 APR 74)

AEDC VA352 CH4B 01 QRB. BOTTOM SURFACE WING

REFERENCE DATA

SREF =	.8238	SQ.FT.	=	106RP	=	.0000	IN.
LREF =	22.5803	IN.		YRP	=	.0000	IN.
BREF =	16.3919	IN.		ZRP	=	.0000	IN.
SCALE =						.0175	SCALE

PARAMETRIC DATA

BETA	=	.000	RN/L	=	2.000
S.FLAP	=	10.000	ELEVON	=	10.000
HAW/HT	=	.900			

WACH (1) =	8.000	ALPHA (1) =	30.000	TI	=	94.650	QI	=	1.985	HREF	=	.035
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SECTION (1) BOTTOM SURF. WING

X/C	.2800	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9650	.9930
.001		.0647	.0355		.4685	.3046	.3355	.0906		.1489	.1085	.0936
.002						.4131		.1968				
.003						.3787		.1936				
.004						.4042		.1835				
.005						.3422		.1702				
.006						.3483		.1575				
.007						.2825		.1482				
.025	.0340			.1901	.4326		.3583					
.050										.1456		
.100				.1759		.1925	.2472	.2387		.1493		
.153	.1138											
.177					.1163							
.200				.1189		.1409						
.299	.0768											
.300					.1155	.1229		.3586	.2241	.1742		
.302				.0974								
.303												
.428							.1270					
.444	.0660					.1200						
.487												
.500					.1002							
.559				.0802			.1071	.3679		.2007		
.590	.0510											
.600					.0891	.0780			.1637			
.700				.0760	.0821	.0444	.0503					
.736	.0742											
.800						.0391	.0596					
.850						.1116	.1287					
.900	.1412			.1209	.1438	.1077	.1212					.2909

AEDC VA352 CH48 O1 CRB. BOTTOM SURFACE WING (ATKLR5)

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.650 Q1 = 1.985 HREF = .035

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

Z/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0680	.0362	.4205	.3819	.2937	.0729	.1573	.1389	.1237
.002			.5304			.1688			
.003			.5099			.1767			
.004			.5276			.1664			
.005			.4587			.1769			
.006			.4231			.1518			
.007			.3456			.1513			
.025	.0548	.1812	.4092		.3195				
.050		.1810		.2349	.2230	.2947	.1759		
.100							.1919		
.153	.1208		.1178						
.177		.1236		.1654					
.200									
.299	.0914		.1116	.1283		.1816	.4052	.3094	
.300		.1034							
.302					.1247				
.303			.1524						
.428									
.444	.0775		.1456						
.487					.1216	.1249	.2696		
.500		.0935							
.599									
.990	.0662		.0964	.0824			.0636		
.800		.0938	.0836	.0532	.0583			.2052	
.700	.1034								
.736				.0429	.0719				
.800				.1366	.1475				
.890									
.900	.1683	.1862	.1531	.1639	.1391			.2355	

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 ORB. BOTTOM SURFACE WING (ATK126) (27 APR 74)

REFERENCE DATA

SRP = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.3803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RNL = 2.000
 B-FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.450 Q1 = 1.983 HREF = .035

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

2Y/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9800 .9930

X/C

.001	.0921	.0467	.5823	.3440	.4341	.0939	.1913	.1370	.0447
.002			.4471	.2425					
.003			.4566	.2292					
.004			.4151	.2046					
.005			.3759	.1818					
.006			.3197	.1479					
.007			.2651	.1348					
.025	.0810	.2617	.5083	.4401					
.050		.1992	.2095	.2223	.2414		.1832	.1870	
.100	.1359								
.150		.1466							
.177		.1290		.1396					
.200									
.259	.0914								
.300		.1357	.0999	.1236	.1456	.1566			
.302		.1037							
.303			.3359						
.428			.1136						
.444	.0795								
.487		.1190							
.500							.2141	.2461	.1230
.559		.0896							
.590	.0620								
.600			.0948	.0915			.0686		
.700		.0261	.0806	.0935	.0661			.0496	
.736	.0763								
.800			.0502	.1037					
.850			.1168	.1534					
.900	.1423	.1236	.0994	.1065	.1201				.1385

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.450 Q1 = 1.983 HREF = .035
 (ATK126)

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

Z/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C		.0916	.0497	.4883	.3207	.3530	.0892	.1655	.1276	.1010		
.001					.4152		.2008					
.002					.4354		.2015					
.003					.4317		.1910					
.004					.3919		.1821					
.005					.3599		.1598					
.006					.3056		.1510					
.007												
.025	.0792			.2251	.4654		.3698					
.050				.2042		.2226	.2274	.2515		.1654		
.100										.1693		
.153	.1477											
.177				.1449								
.200				.1405		.1461						
.299	.0988											
.300						.1141	.3518	.2078	.1742			
.302				.1171								
.303						.1283	.1328					
.428												
.444	.0873											
.487				.1296			.1180	.3779	.1925			
.500												
.559				.0915								
.990	.0663											
.600				.1120	.1039				.1556			
.700				.0899	.0918	.0639	.0536			.1959		
.736	.0858											
.800					.0903	.0472						
.850					.1245	.1329						
.900	.1726			.1220	.1103	.1196	.1248					.2541

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 O1 CFB, BOTTOM SURFACE WING (ATKL27) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CREP = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE MU/HO

ZI/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0599	.0353		.4884	.3471	.4006	.0931		.1590	.1139	.0751
.002						.3561		.2147				
.003						.3767		.2029				
.004						.3180		.1856				
.005						.2868		.1687				
.006						.2608		.1399				
.007						.2136		.1232				
.025	.0522			.1963	.4487		.4157					
.050										.1511		
.100			.0981	.1671		.1562	.3363	.2220		.1497		
.153												
.177					.1189							
.200			.1071			.0938						
.299	.0685											
.300												
.302				.0679	.1510	.1440		.2453	.1269	.1240		
.303							.3985					
.428						.3209						
.444	.0583				.4239							
.487										.1214		
.500				.0995			.4206	.3449				
.559												
.590	.0483											
.600					.1921	.1051			.1382			
.700				.1358	.2437	.2468	.1725			.1878		
.736	.1013											
.800						.3178	.3401					
.850						.4154	.3825					
.900	.1360			.3225	.3299	.3656	.3119				.2276	

AEDC VA332 CH4B O1 CRB. BOTTOM SURFACE WING (ATRL27)
 MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.367 Q1 = 3.936 HREF = .049

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

Z/HO .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0621	.0363	.4682	.3210	.4530	.0988	.1532	.1364	.1134
.002			.4326	.2115					
.003			.3794	.2136					
.004			.4233	.2279					
.005			.3495	.2249					
.006			.3692	.2385					
.007			.2984	.2392					
.025	.0561	.1822	.4360	.5306					
.050		.1787		.2067	.4734	.3501	.1586	.1683	
.100	.1100								
.153		.1278							
.177									
.200	.0792	.1312	.1678						
.299									
.300		.1425	.1471	.4674	.3882	.3046			
.302		.1207							
.303				.1525					
.428			.1658						
.444	.0775								
.487		.3326							
.500		.1979		.2921	.4989	.2454			
.559									
.590	.1123								
.600		.2680	.1399			.2034	.2541		
.700		.2104	.2844	.2276	.2003				
.736	.2666								
.800			.3217	.4047					
.850			.4278	.4704					
.900	.1764	.3591	.3662	.3861	.4023		.3066		

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.367 Q1 = 3.936 HREF = .049

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

Z/HO .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0665	.0378	.4414	.3981	.3094	.0869	.1987	.1602	.1549
.002			.5388	.2299					
.003			.5283	.2589					
.004			.5511	.2732					
.005			.4981	.3018					
.006			.4652	.2809					
.007			.3956	.2900					
.025	.0388	.1903	.4298	.3388					

AEDC VA352 CH48 O1 CR8. BOTTOM SURFACE WING (ATKL27)

MACH (1) = 8.000 ALPHA (3) = 35.000

SECTION (1) BOTTOM SURF. WING

DEPENDENT VARIABLE HU/HO

X/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C	.050											
.100				.2108		.2810	.2654	.5047		.2142		
.153	.1189									.2296		
.177					.1628							
.200				.1777		.2168						
.299	.0937											
.300					.1980	.1635		.3206	.5446	.3822		
.302				.2039								
.303												
.428						.2388	.1838					
.444	.1233											
.487					.3710							
.500												
.559				.3218			.1916	.2074		.3408		
.590	.2454											
.600					.2840	.2090			.1554			
.700				.2871	.2756	.2444	.1020			.3154		
.736	.3802											
.800						.3390	.2494					
.850						.4442	.4218					
.900	.2099			.3817	.3625	.3940	.4305			.3643		

(ATKL28) (27 APR 74)

AEDC VA352 CH4B 01 CRB. BOTTOM SURFACE WING

REFERENCE DATA

SREF =	.8236 SQ.FT.	YREF =	.0000 IN.
LREF =	22.5803 IN.	YREF =	.0000 IN.
CREF =	16.3919 IN.	ZREF =	.0000 IN.
SCALE =	.0175 SCALE		

BETA	=	-5.000	RN/L	=	3.720
9. FLAP	=	10.000	ELEVEN	=	10.000
HAW/HT	=	.900			

PARAMETRIC DATA

WACH (1) =	8.000	ALPHA (1) =	25.000	TI	=	97.300	QI	=	3.930	HREF	=	.049
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SECTION (1) BOTTOM SURF. WING

27/e	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0830	.0494		.5572	.3197	.4527	.0975		.2200	.1353	.0497
.002						.4133		.2540				
.003						.3917		.2310				
.004						.3682		.2019				
.005						.3390		.1752				
.006						.3142		.1398				
.007						.2604		.1242				
.025	.0792			.2768	.4863		.4532					
.050										.2041		
.100				.1957		.1914	.2017	.2278		.2022		
.153	.1224											
.177					.1262							
.200				.1206		.1367						
.299	.0797											
.300												
.302					.1216	.1049		.1113	.1168	.1199		
.303				.1018								
.428							.2511					
.444	.0664				.1625							
.487												
.500					.3612							
.559				.2062			.3674	.1221		.0959		
.590	.0340											
.600					.2327	.0997						
.700				.2724	.2525	.2381	.1824		.0582		.0414	
.736	.0869											
.800						.3742	.3811					
.830						.4507	.4000					
.900	.1227			.3692	.3532	.3835	.3321					.1099

AEDC VA352 CH48 O1 CRB. BOTTOM SURFACE WING (ATK128)

MACH (1) = 6.000 ALPHA (2) = 30.000 TI = 97.300 Q1 = 3.930 HREF = .049

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

Z/H	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0876	.0467	.5594	.3508	.4486	.0886		.1916	.1377	.0640	
.002				.4364	.2439							
.003				.4517	.2309							
.004				.4190	.2100							
.005				.3820	.1839							
.006				.3254	.1900							
.007				.2736	.1390							
.025	.0784			.2516	.5128		.4569					
.050				.2040		.2177	.3324	.2486		.1855	.1862	
.100	.1383											
.153				.1345	.1503	.1467						
.177					.1407	.1121	.2088	.1472	.1579			
.200	.0894											
.299				.1094			.4740					
.302												
.303							.1267					
.428	.0822				.1476							
.444												
.487				.1648			.4002	.3498	.1264			
.500												
.559	.0766											
.590				.1997	.1117				.1512	.1808		
.600				.2463	.2775	.0951	.1586					
.700	.1469											
.736												
.800					.2984	.4052						
.850					.4811	.4940						
.900	.1706			.4156	.3897	.4493	.4148		.2586			

MACH (1) = 6.000 ALPHA (3) = 35.000 TI = 97.300 Q1 = 3.930 HREF = .049

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

Z/H	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0831	.0495	.4755	.3557	.3577	.1003		.1712	.1563	.1277	
.002				.4183	.2122							
.003				.4361	.2176							
.004				.4286	.2299							
.005				.4018	.2319							
.006				.3747	.2482							
.007				.3160	.2471							
.025	.0804			.2271	.4560		.3982					

(ATKLL2B)

AEDC VA352 CH4B 01 CRB. BOTTOM SURFACE WING

$$\text{MACH (1)} = 8.000 \quad \text{ALPHA (3)} = 35.000$$

SECTION (1) BOTTOM SURF. WING

DEPENDENT VARIABLE HU/HO

27/P	.2503	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9860	.9930
X/C												
.090												
.100												
.193	.1461			.2134		.2336	.3223	.3616		.1781		
.177					.1482					.1911		
.200				.1516		.1594						
.299	.0982											
.300					.1475	.1292		.5020	.4050	.3037		
.302				.1316			.1534					
.303						.1474						
.428												
.444	.0921				.1725		.1336	.5171		.2494		
.487												
.500												
.559				.1591								
.590	.1167											
.600					.1621	.1292			.2003			
.700				.1717	.1678	.1020	.0718			.2529		
.736	.2334											
.800						.2961	.1997					
.850						.4989	.4396					
.900	.2238			.3781	.4300	.4777	.4240			.3202		

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 02 CRB. BOTTOM SURFACE WING (ATKLS2) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 1.000
 B. FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 93.400 QI = 1.000 HREF = .024

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

27/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0443	.0322	.2908	.1676	.2187	.0468	.1004	.0607	.0201
.002			.2699	.2699	.1800	.1800			
.003			.3575	.3575	.1802	.1802			
.004			.4021	.4021	.1685	.1685			
.005			.3186	.3186	.1555	.1555			
.006			.3262	.3262	.1300	.1300			
.007			.2612	.2612	.1189	.1189			
.025	.0356	.1706	.3774		.3063				
.050		.1625		.1815	.1852	.2133	.1366	.1394	
.100	.1084								
.153									
.177									
.200		.1079	.1138						
.299	.0761			.1323					
.300									
.302		.0908	.1079	.1057	.1651	.1429	.1339		
.303									
.428				.1164	.1143				
.444	.0658								
.487			.0936						
.500		.0715			.0981	.1768	.1316		
.559									
.590	.0496								
.600			.0793	.0879					
.700		.0694	.0735	.0584	.0546		.1210	.0998	
.736	.0534								
.800				.0351	.0414				
.850				.0900	.0986				
.900	.0209	.0426	.0548	.0466	.0547				.1062

AEDC VA352 CH48 O2 ORB. BOTTOM SURFACE WING (ATKLS2)

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 93.400 QI = 1.000 HREF = .024

SECTION (1) BOTTOM SURF. WING

DEPENDENT VARIABLE HU/HO

Z/Y/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0467	.0325	.2598	.1991	.1978	.0387	.0857	.0535	.0258
.002			.3270	.1478					
.003			.4631	.1505					
.004			.4963	.1438					
.005			.4134	.1405					
.006			.3830	.1187					
.007			.3130	.1090					
.025			.1589	.3499	.2859				
.050			.1616	.2195	.2041	.1909	.1198		
.100							.1262		
.153									
.177			.1122						
.200			.1129	.1488					
.299									
.300						.1267	.1875	.1920	
.302			.0961	.0980	.1066				
.303									
.428				.1356	.1182				
.444									
.487			.0759	.0905	.1068	.1145	.1568		
.500									
.559			.0766						
.590									
.600			.0856	.1071		.0636			
.700			.0754	.0715	.0669	.0620	.0800		
.736			.0637						
.800				.0370	.0486				
.850				.0595	.0724				
.900			.0485	.0806	.0546	.0658	.0749		

MACH (1) = 8.000 ALPHA (3) = 45.000 TI = 93.400 QI = 1.000 HREF = .024

SECTION (1) BOTTOM SURF. WING

DEPENDENT VARIABLE HU/HO

Z/Y/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0471	.0310	.1928	.1444	.1695	.0263	.0667	.0437	.0250
.002			.2433	.1075					
.003			.4167	.1205					
.004			.3966	.1257					
.005			.3759	.1222					
.006			.3232	.1192					
.007			.2822	.1141					
.025			.1330	.2749	.2526				

AEDC VA392 CH48 C2 CRB. BOTTOM SURFACE WING (ATKLS2)

MACH (1) = 0.000 ALPHA (3) = 45.000

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

XY/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.050												
.100				.1461		.2210	.2113	.1869		.1012		
.153	.1294									.1093		
.177					.1022							
.200				.1111		.1490						
.299	.0968											
.300					.0972	.0979		.1273	.1494	.1371		
.302				.0940								
.303							.1291					
.428						.1136						
.444	.0862											
.487					.0896							
.500							.1224	.1237		.1158		
.559				.0801								
.590	.0716											
.600					.0873	.1050			.0675			
.700				.0789	.0801	.0697	.0705			.0673		
.736	.0834											
.800					.0458	.0562						
.850					.0786	.0866						
.900	.0311			.0579	.0633	.0723	.0791				.0841	

AEDC VA352 CH48 O2 ORB. BOTTOM SURFACE WING (ATK133) (27 APR 74)

REFERENCE DATA

XREF = .6236 SQ.FT. XMRP = .0000 IN.
 YREF = 22.5803 IN. YMRP = .0000 IN.
 ZREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = 1.250
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.250 Q1 = 1.253 HREF = .027

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

ZY/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0461	.0323	.2957	.1673	.2180	.0461	.1015	.0604	.0216
.002				.2683	.1812				
.003				.3497	.1819				
.004				.3553	.1701				
.005				.3209	.1574				
.006				.3263	.1338				
.007				.2634	.1211				
.025			.1717	.3809	.2959				
.050									.1375
.100			.1585	.1834	.1769	.2146			.1415
.153			.1084						
.177					.1113				
.200			.1076		.1313				
.299			.0772						
.300				.1086	.1070	.2374	.1542	.1354	
.302			.0901						
.303					.1147				
.428			.0647		.1177				
.444									
.487									
.500				.0910					
.559			.0725		.0969	.2299		.1475	
.590			.0485						
.603				.0807	.0864		.1311		
.700			.0693	.0717	.0567	.0559		.1086	
.736			.0554						
.800				.0328	.0410				
.850				.0506	.0605				
.900			.0426	.0558	.0470	.0542			.1139

MACH (1) = 8.000 ALPHA (2) = 35.000 AEDC VA332 CH48 O2 CR8. BOTTOM SURFACE WING (ATKL33)
 TI = 94.250 Q1 = 1.253 HREF = .027

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

27/8	.2900	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9650	.9930
X/C	.0452	.0323	.2686	.2002	.1920	.0382	.0860	.0592	.0289			
.001				.3205		.1460						
.002				.4574		.1496						
.003				.4640		.1416						
.004				.4132		.1341						
.005				.3766		.1179						
.006				.3154		.1106						
.007					.2727							
.025	.0348		.1566	.3439								
.050			.1612	.2143	.2008	.1929	.1256					
.100							.1344					
.153	.1151											
.177			.1107		.1512							
.200												
.299	.0844											
.300			.1015	.1071	.1310	.2533	.2344					
.302			.0937									
.303					.1189							
.428				.1369								
.444	.0701											
.487			.0907		.1104	.1127	.1909					
.500			.0701									
.559												
.590	.0561			.0839	.1056		.0667					
.600			.0735	.0699	.0651	.0816						
.700												
.736	.0656			.0356	.0470		.0935					
.800				.0380	.0705							
.850				.0540	.0650							
.900	.0281		.0488	.0589	.0540	.0650	.0790					

(ATKLS34) (27 APR 74)

AEDC VA352 CH48 02 CRB. BOTTOM SURFACE WING

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.3803 IN. YMRP = .0000 IN.
 EREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 1.500
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.900 QI = 1.534 HREF = .030

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/H0

21/8 .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0434	.0316	.2940	.1652	.2097	.0466	.0982	.0602	.0078
.002			.2688	.3521	.1811				
.003			.3912	.3135	.1672				
.004			.3238	.1381	.1565				
.005			.2678	.1252					
.006									
.007									
.025	.0361	.1689	.3809	.2970			.1341		
.050		.1588	.1833	.1863	.2176		.1404		
.100	.1088								
.153			.1083						
.177									
.200	.0745	.1074	.1325						
.299									
.300		.1067	.1087	.2847	.1657	.1444			
.302		.0908							
.303			.1174						
.428			.1167						
.444	.0624								
.487			.0928						
.500				.0972	.2746		.1625		
.559		.0718							
.590	.0483								
.600		.0811	.0855				.1394		
.700	.0705	.0725	.0560	.0551					
.736	.0553								
.800		.0319	.0393						
.850		.0497	.0603						
.900	.0239	.0427	.0575	.0463	.0540				.1215

MACH (1) = 6.000 ALPHA (2) = 35.000 CH48 C2 CRB. BOTTOM SURFACE WING (ATK134)
 TI = 94.900 Q1 = 1.534 HREF = .030

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

27/8	.2900	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0436	.0322		.2693	.1975	.1898	.0373		.0910	.0672	.0498
.002					.3251	.1457						
.003					.4586	.1546						
.004					.4664	.1455						
.005					.4077	.1418						
.006					.3840	.1233						
.007					.3138	.1190						
.025	.0347			.1575	.3461		.2725					
.050										.1346		
.100				.1591		.2184	.1989	.2150		.1491		
.153	.1129											
.177				.1109	.1094							
.200												
.299	.0837											
.300					.1025	.1141		.1479	.3177	.2596		
.302				.0949								
.303							.1178					
.428					.1356							
.444	.0706											
.487					.0901							
.500							.1107	.1130		.2231		
.599				.0769								
.590	.0557											
.600					.0843	.1064			.0737			
.700				.0772	.0716	.0656	.0625			.1227		
.736	.0734											
.800					.0355	.0459						
.850					.0590	.0713						
.900	.0317			.0520	.0639	.0548	.0675				.0908	

AEDC VA352 CH48 02 ORB. BOTTOM SURFACE WING (ATKLS9) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9603 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.200 QI = 1.797 HREF = .033

PARAMETRIC DATA

BETA = .000 RM/L = 1.750
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

2r/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0428	.0313		.2907	.1625	.2114	.0478		.0788	.0387	.0418
.002					.2642		.1816					
.003					.3540		.1805					
.004					.3794		.1699					
.005					.3169		.1592					
.006					.3271		.1427					
.007					.2655		.1332					
.025	.0358			.1673	.3711		.2897					
.030				.1588		.1850	.2024	.2176		.1194		.1354
.100	.1075				.1086							
.177				.1083								
.200												
.299	.0746											
.300				.1035	.1112		.3078	.1824	.1464			
.302				.0889			.1178					
.303												
.428					.1173							
.444	.0618											
.487				.0924			.0984	.3117	.1813			
.500				.0709								
.559												
.590	.0474											
.600					.0804	.0854			.1476			
.700				.0717	.0757	.0556	.0553					
.736	.0607											
.800					.0900	.0390						
.850					.0500	.0603						
.900	.0294			.0456	.0606	.0461	.0538					.1272

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 95.200 Q1 = 1.797 HREF = .033
 AEDC VA352 CH48 OE CR8. BOTTOM SURFACE WING (ATKLS5)

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

27/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C	.0416	.0319	.2602	.1954	.1854	.0383	.0956	.0684	.0517			
.001				.3185	.1479							
.002				.4585	.1563							
.003				.4633	.1473							
.004				.4134	.1497							
.005				.3817	.1324							
.006				.3139	.1353							
.007					.2713							
.025	.0358		.1562	.3484						.1446		
.050			.1621		.2126	.1995	.2435			.1660		
.100	.1114											
.153				.1060								
.177				.1491								
.200	.0846											
.299				.1013	.1115	.1699	.3551	.2683				
.300			.0945									
.302					.1162							
.303				.1362								
.426	.0756											
.444			.0911									
.487					.1100	.1136			.2410			
.500												
.599		.0771										
.590	.0592											
.600		.0852	.1052					.0804				
.700	.0813	.0741	.0637	.0620				.1486				
.736	.0612											
.800			.0346	.0456								
.850			.0592	.0715								
.900	.0422	.0576	.0644	.0553	.0673					.1044		

AEDC VA352 CH48 C2 ORB. BOTTOM SURFACE WING (ATK-36) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ. FT. YMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 18.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RM/L = 2.000
 B. FLAP = .000 ELEVON = .000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.967 QI = 1.984 HREF = .035

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

ZY/P .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0430	.0317	.2939	.1597	.2204	.0489	.1006	.0601	.0296
.002			.2656	.2656	.1838				
.003			.3548	.3548	.1801				
.004			.3920	.3920	.1756				
.005			.3162	.3162	.1605				
.006			.3279	.3279	.1476				
.007			.2661	.2661	.1355				
.025	.0383		.1697	.3731	.3127		.1340		
.050			.1996	.1837	.2207	.2242	.1398		
.100	.1096								
.153				.1097					
.177									
.200	.0752		.1071	.1348					
.299									
.300			.0915	.1060	.1111	.3321	.1940	.1575	
.302									
.303				.1167	.1167				
.428									
.444	.0668			.1167					
.487			.0940						
.500					.0977	.3406	.1908		
.559									
.590	.0482		.0734						
.600									
.700			.0770	.0838	.0852		.1527		
.736	.0661			.0789	.0557	.0553		.1287	
.800					.0316	.0397			
.850					.0513	.0622			
.900	.0372		.0906	.0661	.0470	.0355		.1362	

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.967 QI = 1.984 HREF = .035
 AEDC VA352 CH48 OE CRB. BOTTOM SURFACE WING (ATKLS6)

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

2Y/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0448	.0324	.2385	.1959	.1870	.0393	.0993	.0732	.0298
.002			.3217	.1515					
.003			.4562	.1609					
.004			.4699	.1558					
.005			.4183	.1628					
.006			.3850	.1430					
.007			.3179	.1488					
.025	.0380		.1529	.3436	.2688				
.050			.1612	.2129	.2052	.2699	.1556	.1702	
.100	.1117								
.153			.1094	.1062	.1510				
.177									
.200	.0858		.1007	.1094	.1845	.3785	.2771		
.299			.0946						
.302									
.303					.1129				
.428					.1392				
.444	.0739		.0931						
.487					.1103	.1153	.2495		
.500									
.599			.0841						
.690	.0612								
.600			.0888	.1060		.0884	.1634		
.700			.0882	.0773	.0638	.0650			
.736	.0932								
.800				.0348	.0460				
.830				.0607	.0745				
.900	.0544		.0634	.0661	.0584	.0688	.1244		

MACH (1) = 8.000 ALPHA (3) = 45.000 TI = 94.967 QI = 1.984 HREF = .035

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

2Y/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0457	.0315	.1804	.1460	.1703	.0284	.0695	.0464	.0160
.002			.2417	.1076					
.003			.4126	.1145					
.004			.3805	.1232					
.005			.3652	.1182					
.006			.3204	.1152					
.007			.2821	.1095					
.025	.0346		.1271	.2551	.2507				

(ATKLS6)

MACH (1) = 0.000 ALPHA (3) = 45.000

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

Z/H	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.050												
.100				.1476		.2167	.2014	.1758		.1032		
.153	.1259									.1128		
.177					.0910							
.200			.1140		.1489							
.299	.0935											
.300					.0996	.1047	.1242	.1472	.1535			
.302				.0985								
.303							.1290					
.428					.1134							
.444	.0789											
.487					.0986							
.500						.1230	.1270	.1110				
.599			.1012									
.590	.0745											
.600					.0999	.1143			.0681			
.700			.1087	.1049	.0763	.0742				.0721		
.736	.1107											
.800					.0526	.0591						
.850					.0933	.0976						
.900	.0677		.1070	.0897	.0898	.0888						.0975

AEDC VA352 CH48 O2 ORB. BOTTOM SURFACE WING (ATKLS37) (27 APR 74)

REFERENCE DATA

SREF =	.8236 SQ.FT.	XMRP =	.0000 IN.
LREF =	22.5803 IN.	YMRP =	.0000 IN.
DREF =	16.3919 IN.	ZMRP =	.0000 IN.
SCALE =	.0175 SCALE		

PARAMETRIC DATA

BETA	=	.000	RN/L	=	2.250
B.FLAP	=	.000	ELEVON	=	.000
HAW/HT	=	.900			

MACH (1) =	8.000	ALPHA (1) =	30.000	TI	=	95.200	QI	=	2.341	HREF	=	.038
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SECTION (1) BOTTOM SURF. WING

21/8	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
x/c												
.001		.0420	.0315		.2931	.1653	.2206	.0504		.0983	.0612	.0167
.002						.2632		.1826				
.003						.3542		.1809				
.004						.3838		.1735				
.005						.3201		.1638				
.006						.3291		.1543				
.007						.2637		.1461				
.025	.0352			.1651	.3733		.3295					
.050										.1345		
.100				.1615		.1754	.2645	.2274		.1413		
.153	.1057											
.177					.1083							
.200				.1075		.1360						
.299	.0740											
.300					.1091	.1154		.3487	.2252	.1727		
.302				.0891			.1192					
.303						.1187						
.428												
.444	.0625											
.487												
.500					.0960		.1007	.3648		.1986		
.559				.0788								
.590	.0313											
.600					.0924	.0881			.1600			
.700				.0856	.0972	.0583	.0578			.1381		
.736	.0808											
.800						.0326	.0389					
.850						.0555	.0629					
.900	.0541			.0829	.0641	.0519	.0563					.1480

AEDC VA352 CH48 O2 CR8. BOTTOM SURFACE WING (ATK137)

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 95.200 Q1 = 2.341 HREF = .038

SECTION (1) BOTTOM SURF. WING

DEPENDENT VARIABLE HU/HO

Zt/S .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0419	.0328	.2591	.1980	.1830	.0402	.1073	.0749	.0332
.002			.3230	.4589	.1740	.1576			
.003			.4744	.4191	.1847	.1717			
.004			.3845	.3132	.1674	.1780			
.005			.1533	.3421	.2682				
.006			.1596	.2134	.2102	.3189			.1655
.007									.1834
.025	.0348		.1082	.1551					
.050			.1122						
.100	.1104			.1047	.1172	.2021	.4068	.2890	
.153			.0994		.1134				
.177				.1391					
.200									
.299	.0849		.0999		.1123	.1196		.2658	
.300									
.302			.1010						
.303									
.428									
.444	.0733								
.487									
.500									
.599	.0717								
.600			.0973	.1140			.1004		
.700			.1081	.0898	.0720	.0662		.1836	
.736	.1308								
.800				.0400	.0486				
.850				.0688	.0777				
.900	.0783		.0883	.0794	.0651	.0693		.1372	

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 O2 CRB. BOTTOM SURFACE WING (ATKLSB) (27 APR 74)

REFERENCE DATA

SRF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BRP = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RNL = 2.500
 B.FLAP = .000 ELEVON = .000
 HAM/HT = .900

MACH (1) = 0.000 ALPHA (1) = 30.000 TI = 95.550 QI = 2.536 HREF = .039

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

21/8	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9680	.9930
X/C												
.001		.0410	.0320		.2909	.1642	.2269	.0503		.0996	.0601	.0306
.002					.2654	.2654	.1822					
.003					.3533	.3533	.1829					
.004					.3752	.3752	.1781					
.005					.3185	.3185	.1666					
.006					.3272	.3272	.1579					
.007					.2647	.2647	.1510					
.025	.0353			.1617	.3766		.3404					
.050				.1583		.1742	.2858	.2534		.1348		.1393
.100												
.153	.1039											
.177					.1053							
.200				.1064		.1348						
.299	.0760											
.300				.0899	.1070	.1183	.3688	.2432	.1858			
.302							.1173					
.303						.1192						
.428												
.444	.0356											
.487					.0971		.0995	.3872	.2054			
.500				.0829								
.599												
.590	.0324				.0963	.0884			.1614			
.600				.0907	.1146	.0609	.0578				.1464	
.700												
.736	.0936											
.800					.0366	.0461						
.850					.0587	.0698						
.900	.0620			.0698	.1000	.0549	.0668					.1509

(ATK 38)

MACH (1) = 8.000	ALPHA (2) = 35.000	TI = 95.550	QI = 2.536	HEF = .039
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SECTION (1) BOTTOM SURF. WING

27/8	2500	3010	3480	4000	5000	6000	7500	8500	9000	9500	9660	9930
X/C												
.001		.0419	.0326		.2607	.1967	.1803	.0417		.1119	.0766	.0517
.002						.3232		.1654				
.003						.4657		.1854				
.004						.4717		.1836				
.005						.4179		.2024				
.006						.3776		.1871				
.007						.3170		.1975				
.025	.0346			.1920	.3378		.2690					
.090										.1713		
.100				.1567		.2137	.1976	.3457		.1920		
.153	.1103											
.177				.1136	.1086	.1567						
.200												
.299	.0830											
.300				.1017	.1070	.1196		.2208	.4187	.2939		
.302												
.303							.1189					
.428						.1481						
.444	.0752											
.487												
.570					.1089		.1166	.1248		.2740		
.599				.1152								
.590	.0836											
.600					.1097	.1221			.1091	.1989		
.700	.1676			.1263	.1068	.0805	.0678					
.756												
.800						.0485	.0523					
.850						.0813	.0818					
.900	.1022			.1102	.0932	.0792	.0738					.1540

AEDC VA352 OH48 02 ORB. BOTTOM SURFACE WING (ATKLS9) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 2.750
 B-FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 6.000 ALPHA (1) = 30.000 T1 = 96.100 Q1 = 2.816 HREF = .041

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

Z1/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001 .0425 .0318 .2920 .1677 .2340 .0513 .0984 .0613 .0519

.002

.003

.004

.005

.006

.007

.025

.050

.100

.153

.177

.200

.299

.300

.302

.303

.428

.444

.487

.500

.599

.590

.600

.736

.800

.890

.900

.0746

.0778

.1044

.1076

.1083

.1119

.1172

.1233

.1201

.1008

.0894

.1132

.1422

.0936

.0642

.0427

.0690

.0704

.0621

.0600

.1562

.1346

.1396

.2091

.1661

.1509

AEDC VA352 CH4B 02 CRB. BOTTOM SURFACE WING (ATK139)

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 96.100 Q1 = 2.816 HREF = .041

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/H0

2Y/B .2500 .3010 .3480 .4000 .5000 .6000 .7500 .8500 .9000 .9500 .9660 .9930

X/C

.001	.0417	.0329	.2597	.1937	.1842	.0426	.1150	.0784	.0323
.002			.3250	.4615	.1955				
.003			.4854	.4192	.2185				
.004			.3820	.1993	.2135				
.005			.3145	.2686					
.006			.1525	.3443					
.007			.1619	.2203	.2079	.3714	.1785	.1889	
.025	.0356		.1147	.1609					
.030			.1159	.1186	.2354	.4434	.3052		
.100	.1097		.1066	.1244					
.153				.1551					
.177									
.200									
.299	.0838								
.300									
.302									
.303									
.428									
.444	.0711								
.487									
.500			.1200		.1226	.1320	.2832		
.599			.1455						
.590	.1038								
.600			.1240	.1362		.1163	.2157		
.700			.1233	.0930	.0709				
.736	.2078		.1536						
.800				.0605	.0549				
.890			.0946	.0858					
.900	.1056		.1314	.1053	.0927	.0776	.1686		

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q2 CR8, BOTTOM SURFACE WING

(ATK140) (27 APR 74)

REFERENCE DATA

SREF = .0238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.000
 B.FLAP = .000 ELEVON = .000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 96.900 QI = 3.118 HREF = .044

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE MU/HO

2Y/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0414	.0324	.2906	.1631	.2490	.0517		.0994	.0619	.0268	
.002				.2641	.2641		.1643					
.003				.3567	.3567		.1849					
.004				.3855	.3855		.1885					
.005				.3180	.3180		.1801					
.006				.3280	.3280		.1816					
.007				.2634	.2634		.1742					
.025	.0346			.1600	.3746		.3814			.1354		
.030				.1991		.1819	.3550	.2589		.1420		
.100	.1024											
.177				.1076	.1070							
.200	.0737											
.299				.1112	.1220	.3953	.3038	.2336				
.300				.0924								
.302												
.303							.1254					
.428				.1241								
.444	.0666											
.487				.1112		.1164	.4244		.2131			
.500				.0953								
.559												
.590	.0657											
.600				.1459	.1098				.1763			
.700				.1192	.1669	.0945	.0945			.1611		
.736	.1462											
.800				.0685	.0939							
.850				.0990	.1355							
.900	.0891			.1017	.1417	.0848	.1199			.1631		

AEDC VA352 CH48 Q2 CR9. BOTTOM SURFACE WING (ATK-40)			
MACH (1) =	0.000	ALPHA (2) =	35.000
		T1 =	96.900
		Q1 =	3.118
		HREF =	.044

DEPENDENT VARIABLE HUI/H2

27/8	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0417	.0333		.2599	.2017	.1829	.0438		.1196	.0800	.0334
.002						.3245		.1843				
.003						.4617		.2099				
.004						.4739		.2163				
.005						.4181		.2398				
.006						.3886		.2244				
.007						.3270		.2369				
.025	.0347			.1338	.3465		.2703					
.050										.1823		
.100				.1682		.2272	.2096	.4005		.1969		
.153	.1098											
.177				.1212								
.200				.1257		.1699						
.299	.0831											
.300				.1352	.1336			.2642	.4503	.3181		
.302				.1232			.1337					
.303						.1683						
.428												
.444	.0836											
.487					.1527							
.500							.1294	.1472		.2928		
.599				.1963								
.590	.1307											
.600				.1647	.1721				.1313			
.700				.2029	.1677	.1362	.0794			.2248		
.736	.2676											
.800						.0972	.0875					
.850						.1370	.1299					
.900	.1183			.1639	.1387	.1313	.1009					.1873

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q2 ORB. BOTTOM SURFACE WING (ATKL41) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = 3.350
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 97.600 QI = 3.536 HREF = .046

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

ZY/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C												
.001		.0413	.0326	.2903	.1662	.2635	.0516		.1003	.0652	.0284	
.002				.2631	.1876							
.003				.3489	.1876							
.004				.3884	.1933							
.005				.3155	.1870							
.006				.3311	.1923							
.007				.2625	.1885							
.025	.0353		.1602	.3715	.4099					.1367		
.050			.1554		.1802	.4014	.2766			.1413		
.100												
.153	.1034											
.177				.1081								
.200			.1109		.1433							
.299	.0752											
.300				.1144	.1276	.4087	.3303	.2580				
.302	.0972											
.303					.1324							
.428					.1312							
.444	.0682											
.487				.1248						.2208		
.500												
.559				.1278								
.590	.0736											
.600												
.700				.1904	.1569				.1804			
.736	.1854		.1544	.2393	.1481	.1652				.1711		
.800					.1069	.1542						
.850					.1422	.1813						
.900	.1028		.1306	.1644	.1248	.1488				.1675		

WACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 97.600 Q1 = 3.535 WREF = .046
 AEDC VA352 CH48 C2 CFB, BOTTOM SURFACE WING (ATK41)

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

21/8	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C	.001	.0418	.0335	.2570	.1988	.1881	.0454	.1217	.0816	.0355		
.002				.3128			.1938					
.003				.4703			.2229					
.004				.4788			.2351					
.005				.4274			.2549					
.006				.3849			.2453					
.007				.3361			.2561					
.025	.0358			.1592	.3490	.2737						
.050										.1831		
.100				.1575	.2353	.2197	.4227			.1992		
.153	.1068											
.177				.1284	.1773							
.200				.1333								
.299	.0818			.1507	.1409	.2913	.4675	.3237				
.300				.1393								
.302					.1424							
.303					.1852							
.428												
.444	.0936			.1811								
.487												
.500							.1427	.1618	.2966			
.559				.2327								
.590	.1636			.2016	.2175				.1438			
.670				.2368	.2054	.0897						
.700					.1833							
.736	.3087				.1266	.1010						
.800					.1779	.1292						
.850					.1681	.1076						
.900	.1229			.1908	.1584							.2017

AEBC VA352 CH48 02 ORB. BOTTOM SURFACE WING (ATKL42) (27 APR 74)

REFERENCE DATA

SREF	=	.8238 SQ.FT.	XGRP	=	.0000 IN.
LREF	=	22.5803 IN.	YGRP	=	.0000 IN.
BREF	=	16.3919 IN.	ZGRP	=	.0000 IN.
SCALE	=	.0175 SCALE			

PARAMETRIC DATA

BETA	=	.000	RNVL	=	3.720
B.FLAP	=	.000	ELEVON	=	.000
HAUWHT	=	.900			

MACH (1) =	8.000	ALPHA (1) =	30.000	TI	=	97.050	QI	=	3.937	HREF	=	.049
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SECTION (1) BOTTOM SURF. WING

27/8	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
x/c												
.001		.0414	.0331		.2834	.1689	.2869	.0522		.1006	.0708	.0287
.002						.2651		.1929				
.003						.3494		.1980				
.004						.4017		.2074				
.005						.3227		.2022				
.006						.3385		.2131				
.007						.2713		.2106				
.025	.0385			.1630	.3803		.4501					
.050										.1404		
.100				.1659		.1931	.4426	.3037		.1505		
.153	.1040											
.177					.1197							
.200				.1197		.1567						
.299	.0752											
.300					.1311	.1369		.4274	.3586	.2816		
.302				.1120								
.303							.1461					
.428						.1667						
.444												
.487	.0708				.1667							
.500					.1667							
.599							.3219	.4649		.2299		
.990	.0992			.1738								
.600					.2586	.2632			.1894			
.700				.2047	.2819	.2230	.2093					
.736	.2435											
.800						.1473	.1787					
.850						.1942	.2188					
.900	.1106			.1593	.1815	.1705	.1898					.1778

MACH (1) = 8.000 ALPHA (2) = 35.000 Γ_1 = 97.050 ϕ_1 = 3.937 HREF = .049
 AEDC VA352 CH4B Q2 QEB. BOTTOM SURFACE WING (ATKL42)

SECTION (1) BOTTOM SURF. WING DEPENDENT VARIABLE HU/HO

Z/B	.2500	.3010	.3480	.4000	.5000	.6000	.7500	.8500	.9000	.9500	.9660	.9930
X/C	.0420	.0336		.2623	.2036	.1936	.0465		.1273	.0818	.0354	
.001				.3164	.4709	.4960	.2316					
.002				.4507	.4236	.3568	.2879					
.003												
.004												
.005												
.006												
.007												
.025												
.050												
.100												
.153												
.177												
.200												
.299												
.300												
.302												
.303												
.428												
.444												
.487												
.500												
.559												
.590												
.600												
.700												
.736												
.800												
.850												
.900												



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TABULATED DATA LISTING FOR CH48 (AEDC VAS52)

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AEDC VAS52 CH48 01-T10 CRB. UPPER SURFACE WING

(ATKU01) (27 APR 74)

REFERENCE DATA

SREF = .0238 SQ.FT. XGRP = .0000 IN.
 LREF = 22.9803 IN. YGRP = .0000 IN.
 BREF = 16.3919 IN. ZGRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = 3.720
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HI/HO

ZY/B .4000 .6000 .8000

X/C

.050 .0000 .2501 .0000
 .200 .0000 .0987 .0000
 .600 .0000 .0000 .0000
 .800 .0000 .0126 .0000
 .900 .0000 .0000 .0000
 .950 .0000 .0154 .0000

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HI/HO

ZY/B .4000 .6000 .8000

X/C

.050 .0000 .2123 .0000
 .200 .0000 .0316 .0000
 .600 .0000 .0000 .0000
 .800 .0000 .0036 .0000
 .900 .0000 .0000 .0000
 .950 .0000 .0075 .0000

MACH (1) = 8.000 ALPHA (3) = .000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HI/HO

ZY/B .4000 .6000 .8000

X/C

.050 .0000 .1321 .0000
 .200 .0000 .0334 .0000
 .600 .0000 .0000 .0000
 .800 .0000 .0039 .0000
 .900 .0000 .0000 .0000
 .950 .0000 .0042 .0000

AEDC VA352 CH48 01+10 ORB. UPPER SURFACE WING (ATKU01)

MACH (1) = 8.000 ALPHA (4) = 5.000 T1 = 97.600 Q1 = 3.935 HREF = .049

SECTION (1) UPPER SURFACE WING DEPENDENT VARIABLE HI/HO

27/B	.4000	.6000	.8000
X/C			
.050	.0000	.1299	.0000
.200	.0000	.0257	.0000
.600	.0000	.0000	.0000
.800		.0011	.0000
.900		.0000	.0000
.950	.0000	.0022	.0000

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01+110 ORB. UPPER SURFACE WING (ATK082) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

ALPHA = .000 RV/L = 3.720
 B, FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 BETA (1) = -2.000 TI = 97.350 QI = 3.942 HREF = .049

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HI/HO

ZI/B .4000 .6000 .8000

X/C

.050 .0000 .1442 .0000
 .200 .0000 .0306 .0000
 .600 .0000 .0000 .0000
 .800 .0023 .0000 .0000
 .900 .0000 .0000 .0000
 .950 .0000 .0022 .0000

MACH (1) = 8.000 BETA (2) = .000 TI = 97.350 QI = 3.942 HREF = .049

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HI/HO

ZI/B .4000 .6000 .8000

X/C

.050 .0000 .1321 .0000
 .200 .0000 .0334 .0000
 .600 .0000 .0000 .0000
 .800 .0039 .0000 .0000
 .900 .0000 .0000 .0000
 .950 .0000 .0042 .0000

(ATKUD3) (27 APR 74)

AEDC VA352 OH4B 01+110 ORB. UPPER SURFACE WING

REFERENCE DATA

SPREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RH/L = .680
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) UPPER SURFACE WING DEPENDENT VARIABLE HI/HO

ZI/B .4000 .6000 .8000

X/C

.050 .0000 .2013 .0000
 .200 .0000 .0469 .0000
 .600 .0000 .0000 .5000
 .800 .0073 .0000
 .900 .0000 .0000
 .950 .0000 .0086 .0000

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) UPPER SURFACE WING DEPENDENT VARIABLE HI/HO

ZI/B .4000 .6000 .8000

X/C

.050 .0000 .2167 .0000
 .200 .0000 .0526 .0000
 .600 .0000 .0000 .0000
 .800 .0056 .0000
 .900 .0000 .0000
 .950 .0000 .0055 .0000

MACH (1) = 8.000 ALPHA (3) = .000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) UPPER SURFACE WING DEPENDENT VARIABLE HI/HO

ZI/B .4000 .6000 .8000

X/C

.050 .0000 .1616 .0000
 .200 .0000 .0352 .0000
 .600 .0000 .0000 .0000
 .800 .0047 .0000
 .900 .0000 .0000
 .950 .0000 .0047 .0000

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 OI+T10 CRB. UPPER SURFACE WING (ATK003)

MACH (1) = 8.000 ALPHA (4) = 5.000 T1 = 93.425 Q1 = .682 WREF = .020

SECTION (1) UPPER SURFACE WING DEPENDENT VARIABLE HI/HO

ZY/B .4000 .6000 .8000

X/C

.050	.0000	.1396	.0000
.200	.0000	.0274	.0000
.600	.0000	.0000	.0000
.800	.0033	.0000	.0000
.900	.0000	.0000	.0000
.950	.0000	.0032	.0000

AEDC VA332 CH4B 01+T10 ORB, UPPER SURFACE WING

(ATK004) (27 APR 74)

REFERENCE DATA

SHEP = .9238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.3903 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

ALPHA = .000 RN/L = .680
 S.F.LAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 BETA (1) = -2.000 T1 = 93.550 Q1 = .681 HREF = .020

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HI/HO

2Y/B .4000 .6000 .8000

X/C

.050 .0000 .1512 .0000
 .200 .0000 .0343 .0000
 .600 .0000 .0000 .0000
 .800 .0000 .0033 .0000
 .900 .0000 .0000 .0000
 .950 .0000 .0030 .0000

MACH (1) = 8.000 BETA (2) = .000 T1 = 93.550 Q1 = .681 HREF = .020

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HI/HO

2Y/B .4000 .6000 .8000

X/C

.050 .0000 .1616 .0000
 .200 .0000 .0352 .0000
 .600 .0000 .0000 .0000
 .800 .0000 .0047 .0000
 .900 .0000 .0000 .0000
 .950 .0000 .0047 .0000

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA392)

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(ATKUSD) (27 APR 74)

AEDC VA392 CH48 Q1 CRB. UPPER SURFACE WING

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = -5.000

TI = 96.800 QI = 3.961 HREF = .049

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

ZT/B .4000 .6000 .8000

X/C

.050 .1859 .2539 .2647
 .200 .0499 .0817 .0655
 .600 .0035 .3779 .0158
 .800 .0081 .0091
 .900 .0101 .0094
 .950 .0064 .0101 .0091

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (2) = .000

TI = 96.800 QI = 3.961 HREF = .049

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

ZT/B .4000 .6000 .8000

X/C

.050 .0053 .0037 .0101
 .200 .1810 .2320 .2460
 .600 .0310 .0923 .0514
 .800 .2998 .0102
 .900 .0080 .0081
 .950 .0020 .0100 .0099

AEDC VA352 OH48 01 OEB. UPPER SURFACE WING

(ATKUI1) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = -5.000 TI = 93.000 QI =

.677 HREF = .020

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

Z/Y/B .4000 .6000 .8000

X/C

.050 .1663 .2510 .2713
 .200 .0446 .0623 .0636
 .600 .0032 .3097 .0200
 .800 .0074 .0122
 .900 .0085 .0130
 .950 .0114 .0085 .0135

MACH (1) = 8.000 ALPHA (2) = .000 TI = 93.000 QI =

.677 HREF = .020

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

Z/Y/B .4000 .6000 .8000

X/C

.050 .1624 .2246 .2407
 .200 .0319 .0408 .0531
 .600 .0025 .2328 .0108
 .800 .0054 .0075
 .900 .0055 .0062
 .950 .0044 .0052 .0075

PARAMETRIC DATA

BETA = .000 RN/L = .680
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 ORB. UPPER SURFACE WING (ATKUI2) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XGRP = .0000 IN.
 LREF = 22.5803 IN. YGRP = .0000 IN.
 CREF = 16.3919 IN. ZGRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .500
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 93.400 Q1 = .524 HREF = .018

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

2Y/B .4000 .6000 .8000

X/C

.050 .0378 .1038 .1409
 .200 .0051 .0135 .0192
 .600 .0005 .0635 .0052
 .800 .0007 .0043
 .900 .0015 .0058
 .950 .0020 .0030 .0086

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 93.400 Q1 = .524 HREF = .018

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

2Y/B .4000 .6000 .8000

X/C

.050 .0296 .0992 .1165
 .200 .0040 .0142 .0130
 .600 .0006 .0493 .0071
 .800 .0004 .0054
 .900 .0016 .0068
 .950 .0023 .0034 .0090

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 93.400 Q1 = .524 HREF = .018

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

2Y/B .4000 .6000 .8000

X/C

.050 .0217 .0986 .0925
 .200 .0034 .0133 .0117
 .600 .0009 .0290 .0057
 .800 .0017 .0044
 .900 .0030 .0063
 .950 .0031 .0043 .0090

AEDC VA352 CH4B 01 QTB. UPPER SURFACE WING (ATK113) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RM/L = 1.000
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.100 QI = 1.003 HREF = .025

SECTION (1) UPPER SURFACE WING DEPENDENT VARIABLE HU/HO

ZI/B .4000 .6000 .8000

X/C

.050 .0276 .0968 .1129
 .200 .0034 .0132 .0116
 .600 .0006 .0170 .0082
 .800 .0005 .0063 .0063
 .900 .0018 .0086 .0086
 .950 .0020 .0039 .0118

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.100 QI = 1.003 HREF = .025

SECTION (1) UPPER SURFACE WING DEPENDENT VARIABLE HU/HO

ZI/B .4000 .6000 .8000

X/C

.050 .0220 .0905 .0843
 .200 .0032 .0126 .0102
 .600 .0009 .0215 .0054
 .800 .0009 .0043 .0043
 .900 .0023 .0070 .0070
 .950 .0030 .0044 .0107

MACH (1) = 8.000 ALPHA (3) = 40.000 TI = 94.100 QI = 1.003 HREF = .025

SECTION (1) UPPER SURFACE WING DEPENDENT VARIABLE HU/HO

ZI/B .4000 .6000 .8000

X/C

.050 .0161 .0759 .0647
 .200 .0024 .0102 .0075
 .600 .0019 .0593 .0016
 .800 .0012 .0014 .0014
 .900 .0023 .0043 .0043
 .950 .0030 .0051 .0088

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 CRG. UPPER SURFACE WING

(ATKUI4) (27 APR 74)

REFERENCE DATA

BREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RW/L = 1.000
 B.FLAP = .000 ELEVON = .000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.590 QI = 1.994 HREF = .035

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

ZY/B .4000 .6000 .8000

X/C

.050 .0264 .0965 .1117
 .200 .0032 .0125 .0101
 .600 .0004 .0322 .0104
 .800 .0006 .0084
 .900 .0019 .0146
 .950 .0027 .0042 .0195

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.590 QI = 1.994 HREF = .035

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

ZY/B .4000 .6000 .8000

X/C

.050 .0213 .0922 .0761
 .200 .0026 .0123 .0081
 .600 .0003 .0162 .0068
 .800 .0009 .0068
 .900 .0023 .0103
 .950 .0035 .0058 .0145

AEDC VA352 CH48 01 CR8, UPPER SURFACE WING (ATKUIS) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.867 QI = 3.955 HREF = .049

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

ZI/B .4000 .6000 .8000

X/C

.050 .0384 .1050 .1310
 .200 .0034 .0120 .0114
 .600 .0008 .0384 .0103
 .800 .0028 .0028 .0094
 .900 .0051 .0183
 .950 .0059 .0090 .0270

PARAMETRIC DATA

BETA = .000 RM/L = 3.720
 S.FLAP = .000 ELEVON = .000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.867 QI = 3.955 HREF = .049

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

ZI/B .4000 .6000 .8000

X/C

.050 .0269 .0992 .1112
 .200 .0028 .0111 .0093
 .600 .0006 .0298 .0131
 .800 .0012 .0149
 .900 .0042 .0243
 .950 .0046 .0093 .0304

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.867 QI = 3.955 HREF = .049

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

ZI/B .4000 .6000 .8000

X/C

.050 .0206 .0943 .0686
 .200 .0040 .0121 .0080
 .600 .0009 .0193 .0078
 .800 .0009 .0009 .0090
 .900 .0037 .0113
 .950 .0046 .0088 .0206

DATE 12 DEC 74

TABULATED DATA LISTING FOR OH48 (AEDC VA352)

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AEDC VA352 OH48 Q1 CRB. UPPER SURFACE WING (ATKUI6) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = 3.720
 B-FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 97.500 Q1 = 3.958 HREF = .049

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

Z1/B .4000 .6000 .8000

X/C

.050 .0270 .0978 .1189
 .200 .0044 .0120 .0094
 .600 .0005 .0350 .0126
 .800 .0011 .0150
 .900 .0038 .0240
 .950 .0050 .0087 .0321

AEDC VA352 CH48 01 ORB. UPPER SURFACE WING

(ATK117) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .0000 RN/L = 3.720
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 97.700 QI = 3.949 HREF = .049

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

ZY/B .4000 .6000 .8000

X/C

.050 .0029 .0739 .1835
 .200 .0538 .1104 .1807
 .600 .1066 .2601 .1260
 .800 .1429 .1169
 .900 .0628 .1908
 .950 .0751 .0362 .2138

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 97.700 QI = 3.949 HREF = .049

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

ZY/B .4000 .6000 .8000

X/C

.050 .0020 .1323 .1908
 .200 .0575 .2522 .2141
 .600 .1217 .3772 .1891
 .800 .1648 .2106
 .900 .0671 .3307
 .950 .0916 .0367 .2918

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 CRB. UPPER SURFACE WING (ATK020) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RIVL = 2.000
 S.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.900 Q1 = 1.980 HREF = .035

SECTION (1) UPPER SURFACE WING DEPENDENT VARIABLE MU/HO

ZY/B	.4000	.6000	.8000
X/C			
.050	.0008	.0660	.1909
.200	.0554	.0908	.1728
.600	.1127	.0720	.1170
.800		.1144	.0984
.900		.0641	.0801
.950	.0803	.0355	.0762

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.900 Q1 = 1.980 HREF = .035

SECTION (1) UPPER SURFACE WING DEPENDENT VARIABLE MU/HO

ZY/B	.4000	.6000	.8000
X/C			
.050	.0306	.0758	.1799
.200	.0994	.0663	.1800
.600	.1233	.1021	.1256
.800		.1451	.1037
.900		.0685	.0909
.950	.0893	.0364	.0896

(ATK022) (27 APR 74)

AEDC VA352 CH48 01 CRIB. UPPER SURFACE WING

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 UREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 6.000 ALPHA (1) = 30.000 TI = 93.400 QI = .523 HREF = .018

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

Z1/B .4000 .6000 .8000

X/C

.090 .0012 .0722 .1946
 .200 .0000 .0571 .1755
 .600 .1147 .0601 .1179
 .800 .0402 .0995
 .900 .0681 .0818
 .950 .0808 .0366 .0753

PARAMETRIC DATA

BETA = .000 RN/L = .500
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 6.000 ALPHA (2) = 35.000 TI = 93.400 QI = .523 HREF = .018

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

Z1/B .4000 .6000 .8000

X/C

.090 .0025 .0835 .1893
 .200 .0000 .0651 .1828
 .600 .1314 .0724 .1261
 .800 .0587 .1040
 .900 .0750 .0859
 .950 .0936 .0369 .0785



DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 O1 ORB. UPPER SURFACE WING

(ATK023) (27 APR 74)

REFERENCE DATA

REF = .0236 SQ. FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RM/L = .900
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 93.433 QI = .521 HREF = .018

SECTION (1) UPPER SURFACE WING DEPENDENT VARIABLE HU/HO

ZY/B .4000 .6000 .8000

X/C

.050 .0010 .0616 .2139
 .200 .0541 .0480 .1695
 .600 .0982 .0513 .1072
 .800 .0746 .0886
 .900 .0647 .0742
 .950 .0697 .0358 .0695

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 93.433 QI = .521 HREF = .018

SECTION (1) UPPER SURFACE WING DEPENDENT VARIABLE HU/HO

ZY/B .4000 .6000 .8000

X/C

.050 .0013 .0725 .1984
 .200 .0565 .0280 .1755
 .600 .1143 .0593 .1169
 .800 .0915 .0986
 .900 .0690 .0788
 .950 .0811 .0364 .0763

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 93.433 QI = .521 HREF = .018

SECTION (1) UPPER SURFACE WING DEPENDENT VARIABLE HU/HO

ZY/B .4000 .6000 .8000

X/C

.050 .0012 .0820 .1895
 .200 .0562 .0665 .1812
 .600 .1283 .0718 .1254
 .800 .1049 .1055
 .900 .0749 .0861
 .950 .0921 .0367 .0786

AEDC VA352 CH4B 01 ORB. UPPER SURFACE WING (ATKUS) (27 APR 74)

REFERENCE DATA

SRP = .8238 SQ.FT. YMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = 2.000
 B-FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.650 QI = 1.985 HREF = .035

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

ZY/B .4000 .6000 .8000

X/C

.050 .0016 .0660 .1901
 .200 .0340 .0510 .1739
 .600 .1138 .0742 .1169
 .800 .1412 .0974
 .900 .0647 .0802
 .950 .0788 .0355 .0760

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.650 QI = 1.985 HREF = .035

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

ZY/B .4000 .6000 .8000

X/C

.050 .0014 .0775 .1812
 .200 .0348 .0662 .1810
 .600 .1208 .1034 .1236
 .800 .1683 .1054
 .900 .0680 .0955
 .950 .0914 .0362 .0938

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 O1 CRB. UPPER SURFACE WING (ATKU27) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.3603 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B. FLAP = 10.000 ELEVON = 10.000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

ZY/B .4000 .6000 .8000

X/C

.050 .0039 .0563 .1963
 .200 .0522 .0483 .1671
 .600 .0961 .1013 .1071
 .800 .1360 .0879
 .900 .0599 .0995
 .950 .0665 .0353 .1358

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

ZY/B .4000 .6000 .8000

X/C

.050 .0026 .0775 .1822
 .200 .0561 .1123 .1787
 .600 .1100 .2666 .1312
 .800 .1764 .1207
 .900 .0621 .1979
 .950 .0792 .0363 .2104

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) UPPER SURFACE WING

DEPENDENT VARIABLE HU/HO

ZY/B .4000 .6000 .8000

X/C

.050 .0026 .1233 .1903
 .200 .0588 .2454 .2108
 .600 .1189 .3602 .1777
 .800 .2099 .2039
 .900 .0665 .3218
 .950 .0937 .0378 .2871

AEDC VA352 CH48 01*1D ORB. LEFT VERTICAL TAIL (ATKVD1) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = -10.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HI/HO

Z/EV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0000 .6217 .5911 .5728
 .010 .0000 .0000 .0000 .0000
 .100 .0000 .0000 .1557 .1675
 .300 .0000 .0000 .0700 .0746
 .500 .0000 .0000 .0000 .0192
 .700 .0000 .0000 .0000 .0000
 .900 .0000 .0000 .0166 .0000

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HI/HO

Z/EV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0000 .3933 .7072 .6498
 .010 .0000 .0000 .0000 .0000
 .100 .0000 .0000 .1057 .1509
 .300 .0000 .0000 .0311 .0668
 .500 .0000 .0000 .0000 .0480
 .700 .0000 .0000 .0000 .0000
 .900 .0000 .0000 .0111 .0000

MACH (1) = 8.000 ALPHA (3) = .000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HI/HO

Z/EV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0000 .3140 .4399 .4612
 .010 .0000 .0000 .0000 .0000
 .100 .0000 .0000 .0783 .0988
 .300 .0000 .0000 .0391 .0472
 .500 .0000 .0000 .0000 .0325
 .700 .0000 .0000 .0000 .0000
 .900 .0000 .0000 .0113 .0000

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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MACH (1) = 0.000 ALPHA (4) = 5.000 TI = 97.000 Q1 = 3.935 HREF = .049
 AEDC VA352 CH48 01-V10 CR8. LEFT VERTICAL TAIL (ATKVO1)

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HI/HO

Z/BV .1590 .2990 .5320 .7650 .9050

X/C

.000	.0000	.3399	.4830	.3710
.010				.0000
.100	.0000	.0730	.0892	
.300	.0000	.0330	.0431	
.500	.0000	.0000	.0000	.0286
.700	.0000	.0000	.0000	
.900	.0000	.0000	.0091	

AEDC VA352 CH48 01+110 CRB. LEFT VERTICAL TAIL (ATKV02) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

ALPHA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 BETA (1) = -2.000 T1 = 97.350 Q1 = 3.942 HREF = .049

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HI/HO

Z/BV .1990 .2990 .5320 .7650 .9090

X/C

.000 .0000 .4073 .7118 .5233
 .010 .0000 .0000 .0888 .1291
 .100 .0000 .0000 .0513 .0518
 .300 .0000 .0000 .0000 .0000
 .500 .0000 .0000 .0000 .0000
 .700 .0000 .0000 .0000 .0000
 .900 .0000 .0000 .0000 .0145

MACH (1) = 8.000 BETA (2) = .000 T1 = 97.350 Q1 = 3.942 HREF = .049

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HI/HO

Z/BV .1990 .2990 .5320 .7650 .9090

X/C

.000 .0000 .3140 .4399 .4612
 .010 .0000 .0000 .0988 .0000
 .100 .0000 .0000 .0783 .0988
 .300 .0000 .0000 .0391 .0472
 .500 .0000 .0000 .0000 .0325
 .700 .0000 .0000 .0000 .0000
 .900 .0000 .0000 .0000 .0113

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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(ATKVO3) (27 APR 74)

AEDC VA352 CH48 01+110 ORB, LEFT VERTICAL TAIL

REFERENCE DATA

SREF = .8236 80. FT. XMRP = .0000 IN.
 LREF = 22.3803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .680
 B. FLAP = .000 ELEVON = .000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HI/HO

Z/8V .1990 .2990 .5320 .7650 .9050

X/C

.000 .0000 .6184 .9805 .6406
 .010 .0000 .0000 .0000
 .100 .0000 .0000 .1441 .1780
 .300 .0000 .0000 .0674 .0983
 .500 .0000 .0000 .0000 .0252
 .700 .0000 .0000 .0000 .0000
 .900 .0000 .0000 .0000 .0192

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HI/HO

Z/8V .1990 .2990 .5320 .7650 .9050

X/C

.000 .0000 .4013 .7650 .7171
 .010 .0000 .0000 .0000
 .100 .0000 .0000 .1035 .1404
 .300 .0000 .0000 .0471 .0648
 .500 .0000 .0000 .0000 .0421
 .700 .0000 .0000 .0000 .0000
 .900 .0000 .0000 .0000 .0140

MACH (1) = 8.000 ALPHA (3) = .000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HI/HO

Z/8V .1990 .2990 .5320 .7650 .9050

X/C

.000 .0000 .3338 .4901 .5160
 .010 .0000 .0000 .0000
 .100 .0000 .0000 .0822 .0990
 .300 .0000 .0000 .0415 .0513
 .500 .0000 .0000 .0000 .0332
 .700 .0000 .0000 .0000 .0000
 .900 .0000 .0000 .0000 .0121

AEDC VA332 CH48 01+110 ORB. LEFT VERTICAL TAIL (ATKVO3)

MACH (1) = 8.000 ALPHA (4) = 5.000 T1 = 93.425 Q1 = .682 HREF = .020

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HI/H0

Z/8V .1590 .2990 .5320 .7650 .9050

X/C

.000	.0000	.3413	.5216	.4125
.010				.0050
.100	.0000	.0000	.0747	.0920
.300	.0000	.0000	.0342	.0435
.500	.0000	.0000	.0000	.0284
.700	.0000	.0000	.0000	.0000
.900	.0000	.0000	.0000	.0104

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01+T10 CR8. LEFT VERTICAL TAIL (ATKV04) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

ALPHA = .000 RN/L = .680
 B. FLAP = .000 ELEWON = .000
 HAW/HT = .900

MACH (1) = 8.000 BETA (1) = -2.000 TI = 93.550 Q1 = .681 HREF = .020

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HI/HO

Z/EV	.1590	.2990	.5320	.7650	.9050
X/C					
.000	.0000	.0000	.4541	.8387	.5754
.010					.0000
.100	.0000	.0000	.0953	.1262	
.300	.0000	.0000	.0536	.0534	
.500	.0000	.0000	.0000	.0398	
.700	.0000	.0000	.0000	.0000	
.900	.0000	.0000	.0000	.0151	

MACH (1) = 8.000 BETA (2) = .000 TI = 93.550 Q1 = .681 HREF = .020

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HI/HO

Z/EV	.1590	.2990	.5320	.7650	.9050
X/C					
.000	.0000	.0000	.3338	.4901	.5160
.010					.0000
.100	.0000	.0000	.0822	.0990	
.300	.0000	.0000	.0415	.0513	
.500	.0000	.0000	.0000	.0332	
.700	.0000	.0000	.0000	.0000	
.900	.0000	.0000	.0000	.0121	

AEDC VA352 CH48 01 QRB, LEFT VERTICAL TAIL (ATKV10) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 EREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = -5.000 TI = 96.800 QI = 3.961 HREF = .049

SECTION (1) LEFT VERTICAL TAIL

DEPENDENT VARIABLE HU/HO

Z/BV .1990 .2990 .5320 .7650 .9050

X/C

.000 .000 .3080 .4544 .8093 .8912
 .010 .010 .010 .010 .010 .2490
 .100 .0701 .0685 .1070 .1442
 .300 .0797 .0219 .0488 .0640
 .500 .1096 .0209 .0455 .0592
 .700 .0272 .0362 .0058 .0121
 .900 .0296 .0186 .0124

MACH (1) = 8.000 ALPHA (2) = .000 TI = 96.800 QI = 3.961 HREF = .049

SECTION (1) LEFT VERTICAL TAIL

DEPENDENT VARIABLE HU/HO

Z/BV .1990 .2990 .5320 .7650 .9050

X/C

.000 .000 .3554 .2890 .5556 .5824
 .010 .010 .010 .010 .010 .1446
 .100 .0723 .0673 .0711 .1033
 .300 .0535 .0239 .0348 .0490
 .500 .0485 .0206 .0332 .0349
 .700 .0286 .0362 .0061 .0096
 .900 .0242 .0081 .0095

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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(ATKV11) (27 APR 74)

AEDC VA352 CH48 01 OR8. LEFT VERTICAL TAIL

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 ZREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .680
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -5.000 TI = 93.000 QI = .677 HREF = .020

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/8V .1590 .2990 .5320 .7650 .9050

X/C

.000 .3169 .4641 .6385 .8947
 .010 .010 .2063
 .100 .0808 .0707 .1046 .1375
 .300 .0493 .0330 .0319 .0655
 .500 .0265 .0347 .0461 .0484
 .700 .0212 .0321 .0100 .0136
 .900 .0244 .0093 .0135

MACH (1) = 8.000 ALPHA (2) = .000 TI = 93.000 QI = .677 HREF = .020

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/8V .1590 .2990 .5320 .7650 .9050

X/C

.000 .3903 .2666 .5632 .6307
 .010 .010 .1436
 .100 .0768 .0703 .0737 .0959
 .300 .0597 .0329 .0361 .0301
 .500 .0280 .0259 .0336 .0346
 .700 .0144 .0168 .0090 .0117
 .900 .0141 .0102 .0111

AEDC VA352 CH48 Q1 OR9. LEFT VERTICAL TAIL (ATKV12) (27 APR 74)

REFERENCE DATA

SREF = .8239 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .500
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 93.400 QI = .524 HREF = .018

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/8V .1590 .2990 .5320 .7650 .9050

X/C

.000 .0908 .0727 .0847 .0854
 .010 .0195 .0186 .0217 .0245
 .300 .0085 .0068 .0093 .0136
 .500 .0073 .0074 .0096 .0064
 .700 .0037 .0045 .0040 .0042
 .900 .0040 .0057 .0053

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 93.400 QI = .524 HREF = .018

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/8V .1590 .2990 .5320 .7650 .9050

X/C

.000 .0267 .0397 .0460 .0283
 .010 .0144 .0178 .0210 .0179
 .300 .0072 .0067 .0106 .0145
 .500 .0052 .0081 .0106 .0090
 .700 .0017 .0034 .0049
 .900 .0019 .0038 .0057

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 93.400 QI = .524 HREF = .018

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/8V .1590 .2990 .5320 .7650 .9050

X/C

.000 .0494 .0379 .0623 .0550
 .010 .0159 .0116 .0139 .0255
 .300 .0061 .0040 .0112 .0179
 .500 .0016 .0066 .0143 .0146
 .700 .0009 .0020 .0023 .0068
 .900 .0032 .0032 .0080

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 ORB. LEFT VERTICAL TAIL (ATKV13) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. YMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RM/L = 1.000
 B.FLAP = .000 ELEVON = .000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.100 QI = 1.003 HREF = .025

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0443 .0357 .0381 .0260
 .010 .0168 .0152 .0167 .0176
 .300 .0072 .0075 .0116 .0170
 .500 .0090 .0097 .0161 .0133
 .700 .0022 .0017 .0039 .0067
 .900 .0030 .0041 .0083

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.100 QI = 1.003 HREF = .025

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0449 .0409 .0759 .0571
 .010 .0170 .0126 .0179 .0342
 .300 .0069 .0047 .0130 .0303
 .500 .0021 .0021 .0101 .0242
 .700 .0020 .0024 .0033 .0134
 .900 .0031 .0046 .0167

MACH (1) = 8.000 ALPHA (3) = 40.000 TI = 94.100 QI = 1.003 HREF = .025

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0204 .0230 .0540 .0835
 .010 .0147 .0061 .0092 .0208
 .300 .0081 .0030 .0040 .0131
 .500 .0029 .0029 .0034 .0093
 .700 .0027 .0019 .0023 .0049
 .900 .0043 .0059 .0074

(ATKV14) (27 APR 74)

AEDC VA352 OH48 Q1 ORB. LEFT VERTICAL TAIL

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 OREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 2.000
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 YI = 95.550 QI = 1.994 HREF = .035

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/EV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0233 .0210 .0362 .0500
 .010 .0158 .0098 .0101 .0198
 .100 .0088 .0063 .0083 .0140
 .300 .0030 .0023 .0043 .0084
 .500 .0023 .0057 .0100

MACH (1) = 8.000 ALPHA (2) = 35.000 YI = 95.550 QI = 1.994 HREF = .035

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/EV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0369 .0558 .0925 .0741
 .010 .0167 .0104 .0312 .0292
 .100 .0083 .0054 .0227 .0293
 .300 .0028 .0029 .0315 .0166
 .500 .0020 .0023 .0075 .0128
 .700 .0036 .0075 .0127

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA332)

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(ATKV15) (27 APR 74)

AEDC VA332 CH48 01 ORB. LEFT VERTICAL TAIL

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RNV/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 T1 = 97.867 Q1 = 3.955 HREF = .049

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1990 .2990 .5320 .7650 .9050

X/C

.000 .1674 .0896 .0944 .1642
 .010 .0482
 .100 .0209 .0167 .0207 .0374
 .300 .0058 .0103 .0154 .0250
 .500 .0106 .0141 .0190 .0248
 .700 .0035 .0053 .0063 .0084
 .900 .0057 .0085 .0101

MACH (1) = 8.000 ALPHA (2) = 30.000 T1 = 97.867 Q1 = 3.955 HREF = .049

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1990 .2990 .5320 .7650 .9050

X/C

.000 .0250 .0440 .0804 .0877
 .010 .0335
 .100 .0160 .0100 .0276 .0318
 .300 .0095 .0064 .0226 .0311
 .500 .0063 .0159 .0289 .0203
 .700 .0037 .0034 .0055 .0121
 .900 .0044 .0079 .0117

MACH (1) = 8.000 ALPHA (3) = 35.000 T1 = 97.867 Q1 = 3.955 HREF = .049

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1990 .2990 .5320 .7650 .9050

X/C

.000 .0288 .0547 .1003 .0830
 .010 .0301
 .100 .0180 .0109 .0240 .0378
 .300 .0084 .0099 .0227 .0313
 .500 .0065 .0232 .0257 .0207
 .700 .0018 .0036 .0101 .0104
 .900 .0046 .0117 .0118

AEDC VA332 CH48 01 CRB. LEFT VERTICAL TAIL (ATKV17) (27 APR 74)

REFERENCE DATA

SREF = .9238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 EREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 97.700 QI = 3.949 HREF = .049
 BETA = .000 RM/L = 3.720
 S.FLAP = 10.000 ELEVON = 5.000
 HAM/HT = .900

PARAMETRIC DATA

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/EV	.1990	.2990	.5320	.7650	.9050
X/C					
.000	.0244	.0425	.0774	.0878	
.010				.0338	
.100	.0165	.0103	.0269	.0317	
.300	.0096	.0064	.0209	.0305	
.500		.0063	.0100	.0288	.0203
.700	.0038	.0032	.0057	.0121	
.900		.0041	.0081	.0123	

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 97.700 QI = 3.949 HREF = .049

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/EV	.1990	.2990	.5320	.7650	.9050
X/C					
.000	.0277	.0541	.1001	.0832	
.010				.0304	
.100	.0176	.0114	.0245	.0383	
.300	.0087	.0095	.0223	.0316	
.500		.0069	.0235	.0256	.0209
.700	.0019	.0028	.0102	.0106	
.900		.0048	.0111	.0115	

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 CRB. LEFT VERTICAL TAIL (ATKV18) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.9319 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RN/L = 3.720
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 97.200 Q1 = 3.933 HREF = .049

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1990 .2990 .5320 .7650 .9090

X/C

.000 .0164 .0745 .0640 .0702
 .010 .0103 .0493 .0556 .0448
 .100 .0153 .0493 .0725 .0423
 .300 .0099 .0390 .0444 .0369
 .500 .0053 .0171 .0149 .0247
 .700 .0151 .0169 .0235
 .900

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 97.200 Q1 = 3.933 HREF = .049

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1990 .2990 .5320 .7650 .9090

X/C

.000 .0261 .0491 .1163 .1254
 .010 .0183 .0159 .0464 .0415
 .100 .0084 .0109 .0415 .0299
 .300 .0098 .0336 .0256 .0214
 .500 .0020 .0045 .0093 .0112
 .700 .0037 .0096 .0117
 .900

AEDC VA332 CH48 Q1 ORB. LEFT VERTICAL TAIL (ATKV19) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. YMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RN/L = 2.000
 S.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.650 Q1 = 1.983 HREF = .035

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/EV .1990 .2990 .5320 .7650 .9050

X/C

.000 .0249 .0427 .0900 .1507
 .010 .0187 .0104 .0334 .0439
 .100 .0095 .0096 .0555 .0373
 .300 .0106 .0420 .0347 .0232
 .500 .0032 .0042 .0143 .0115
 .700 .0043 .0173 .0154 .0163
 .900

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.650 Q1 = 1.983 HREF = .035

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/EV .1990 .2990 .5320 .7650 .9050

X/C

.000 .0170 .0452 .0345 .0233
 .010 .0140 .0186 .0451 .0276
 .100 .0057 .0116 .0547 .0352
 .300 .0140 .0437 .0255 .0374
 .500 .0022 .0065 .0136 .0245
 .700 .0060 .0144 .0127 .0121
 .900

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 ORB. LEFT VERTICAL TAIL (ATKV20) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RM/L = 2.000
 B.FLAP = 10.000 ELEVON = 5.000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.900 QI = 1.980 HREF = .035

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0207 .0218 .0373 .0902
 .010 .0296
 .100 .0171 .0098 .0102 .0190
 .300 .0091 .0067 .0084 .0145
 .500 .0031 .0095 .0138 .0142
 .700 .0029 .0023 .0041 .0073
 .900 .0023 .0055 .0107

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.900 QI = 1.980 HREF = .035

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0370 .0569 .0955 .0773
 .010 .0245
 .100 .0167 .0114 .0311 .0288
 .300 .0086 .0056 .0232 .0290
 .500 .0032 .0238 .0307 .0167
 .700 .0016 .0022 .0071 .0131
 .900 .0035 .0065 .0125

AEDC VA332 CH48 01 ORB. LEFT VERTICAL TAIL (ATKV21) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -3.000 RN/L = .500
 S.FLAP = 10.000 ELEVON = 8.000
 HAWAHT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 91.950 OI = .518 HREF = .017

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/EV .1990 .2990 .5320 .7650 .9050

X/C

.000 .0359 .0199 .0638 .0919
 .010 .0491
 .100 .0178 .0119 .0154 .0406
 .300 .0111 .0084 .0098 .0247
 .500 .0085 .0105 .0174 .0169
 .700 .0028 .0035 .0069 .0098
 .900 .0048 .0102 .0115

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 91.950 OI = .518 HREF = .017

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/EV .1990 .2990 .5320 .7650 .9050

X/C

.000 .0112 .0585 .0588 .0494
 .010 .0346
 .100 .0106 .0000 .0909 .0377
 .300 .0067 .0100 .0308 .0268
 .500 .0166 .0265 .0271 .0148
 .700 .0020 .0046 .0119 .0146
 .900 .0057 .0151 .0148

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 CRB. LEFT VERTICAL TAIL (ATKV22) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .500
 S.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 93.400 Q1 = .523 HREF = .018

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0630 .0476 .0538 .0375
 .010 .0194
 .100 .0181 .0000 .0172 .0205
 .300 .0077 .0074 .0107 .0142
 .500 .0061 .0085 .0106 .0093
 .700 .0025 .0028 .0039 .0055
 .900 .0025 .0049 .0064

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 93.400 Q1 = .523 HREF = .018

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0535 .0379 .0640 .0590
 .010 .0262
 .100 .0167 .0000 .0152 .0241
 .300 .0069 .0051 .0098 .0191
 .500 .0026 .0070 .0154 .0164
 .700 .0022 .0018 .0024 .0078
 .900 .0033 .0035 .0088

AEDC VA332 CH48 Q1 QP2. LEFT VERTICAL TAIL

(ATKV23) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 PREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .900
 B.FLAP = 10.000 ELEVON = 10.000
 YAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 T1 = 93.433 Q1 = .521 HREF = .018

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0948 .0772 .0907 .0897
 .010 .0193 .0174 .0211 .0248
 .0257
 .300 .0087 .0074 .0094 .0134
 .500 .0073 .0069 .0087 .0078
 .700 .0032 .0038 .0041 .0045
 .900 .0042 .0058 .0053

MACH (1) = 8.000 ALPHA (2) = 30.000 T1 = 93.433 Q1 = .521 HREF = .018

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0646 .0462 .0529 .0372
 .010 .0157 .0176 .0214 .0187
 .100 .0076 .0065 .0106 .0147
 .300 .0052 .0088 .0106 .0093
 .500 .0024 .0025 .0035 .0050
 .700 .0018 .0031 .0059

MACH (1) = 8.000 ALPHA (3) = 35.000 T1 = 93.433 Q1 = .521 HREF = .018

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0533 .0400 .0650 .0577
 .010 .0169 .0133 .0142 .0253
 .0270
 .300 .0064 .0033 .0090 .0194
 .500 .0033 .0065 .0150 .0155
 .700 .0018 .0021 .0073
 .900 .0040 .0043 .0085

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01 ORB. LEFT VERTICAL TAIL (ATK24) (27 APR 74)

REFERENCE DATA

PARAMETRIC DATA

SREF = .8238 50.FT. XGRP = .0000 IN.
 LREF = 22.5803 IN. YGRP = .0000 IN.
 BREF = 16.3919 IN. ZGRP = .0000 IN.
 SCALE = .0175 SCALE
 BETA = -5.000 RV/L = .500
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 93.233 QI = .523 HREF = .018
 SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0820 .0436 .0415 .0852
 .010 .0530
 .100 .0157 .0138 .0111 .0313
 .300 .0087 .0097 .0102 .0196
 .500 .0108 .0089 .0117 .0187
 .700 .0032 .0034 .0046 .0074
 .900 .0046 .0062 .0085

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 93.233 QI = .523 HREF = .018
 SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0377 .0157 .0582 .0697
 .010 .0479
 .100 .0183 .0111 .0133 .0384
 .300 .0105 .0093 .0089 .0231
 .500 .0075 .0097 .0170 .0159
 .700 .0028 .0041 .0068 .0096
 .900 .0045 .0111 .0110

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 93.233 QI = .523 HREF = .018
 SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0121 .0583 .0593 .0485
 .010 .0350
 .100 .0109 .0115 .0485 .0394
 .300 .0063 .0103 .0251 .0264
 .500 .0158 .0261 .0285 .0145
 .700 .0014 .0055 .0110 .0145
 .900 .0057 .0147 .0138

(ATKV25) (27 APR 74)

AEDC VA352 CH4B Q1 QRB. LEFT VERTICAL TAIL

REFERENCE DATA

SPREF = .8238 SQ.FT. XMRP = .0003 IN.
 LPREF = 22.5803 IN. YMRP = .0003 IN.
 EPREF = 16.3919 IN. ZMRP = .0003 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 94.650 Q1 = 1.985 HREF = .035

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/EV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0214 .0217 .0379 .0501
 .010 .0168 .0096 .0116 .0186
 .100 .0093 .0065 .0083 .0146
 .500 .0056 .0088 .0138 .0141
 .700 .0032 .0018 .0041 .0087
 .900 .0021 .0056 .0107

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 94.650 Q1 = 1.985 HREF = .035

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/EV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0366 .0573 .0954 .0767
 .010 .0168 .0105 .0313 .0276
 .100 .0084 .0052 .0233 .0282
 .500 .0033 .0235 .0315 .0164
 .700 .0020 .0017 .0070 .0133
 .900 .0033 .0061 .0131

PARAMETRIC DATA

BETA = .000 RNVL = 2.000
 S-FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 ORB. LEFT VERTICAL TAIL (ATKV26) (27 APR 74)

REFERENCE DATA

SREF = .8236 50. FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RV/L = 2.000
 B. FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.490 Q1 = 1.983 HREF = .035

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0257 .0406 .0919 .1512
 .010 .0448
 .100 .0185 .0110 .0347 .0375
 .300 .0087 .0093 .0558 .0248
 .500 .0101 .0427 .0329 .0106
 .700 .0025 .0029 .0190 .0161
 .900 .0042 .0171 .0151

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.490 Q1 = 1.983 HREF = .035

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/BV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0175 .0434 .0339 .0226
 .010 .0273
 .100 .0129 .0176 .0457 .0357
 .300 .0099 .0113 .0537 .0360
 .500 .0134 .0442 .0257 .0246
 .700 .0023 .0067 .0137 .0116
 .900 .0099 .0135 .0124

AEDC VA352 CH48 01 CRB, LEFT VERTICAL TAIL (ATKV27) (27 APR 74)

REFERENCE DATA

SPCF = .8238 SQ.FT. XMRP = .0000 IN.
 LPEF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 FN/L = 3.720
 S.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/EV .1590 .2990 .5320 .7650 .9050

X/C

.000 .1638 .0843 .0885 .1651
 .010 .0212 .0162 .0200 .0373
 .100 .0059 .0098 .0154 .0250
 .300 .0101 .0144 .0185 .0260
 .500 .0036 .0051 .0063 .0086
 .700 .0051 .0079 .0104

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/EV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0246 .0436 .0774 .0870
 .010 .0097 .0285 .0322 .0338
 .100 .0064 .0232 .0313 .0201
 .300 .0068 .0161 .0284 .0117
 .500 .0035 .0033 .0060 .0119
 .700 .0043 .0080 .0119

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/EV .1590 .2990 .5320 .7650 .9050

X/C

.000 .0283 .0534 .0998 .0836
 .010 .0176 .0108 .0237 .0388
 .100 .0081 .0095 .0219 .0318
 .300 .0079 .0226 .0255 .0207
 .500 .0022 .0036 .0103 .0107
 .700 .0053 .0119 .0122

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA392)

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AEDC VA392 CH48 01 ORB. LEFT VERTICAL TAIL (ATKV28) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RV/L = 3.720
 S.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.300 QI = 3.930 HREF = .049

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/8V .1590 .2990 .5320 .7650 .9050

X/C

.000 .0164 .0721 .0798 .0534
 .010 .0362
 .100 .0063 .0077 .0493 .0411
 .300 .0072 .0114 .0449 .0233
 .500 .0158 .0158 .0507 .0360 .0136
 .700 .0045 .0102 .0173 .0168
 .900 .0115 .0189 .0178

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.300 QI = 3.930 HREF = .049

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/8V .1590 .2990 .5320 .7650 .9050

X/C

.000 .0248 .0710 .1780 .1179
 .010 .0461
 .100 .0176 .0220 .0534 .0355
 .300 .0088 .0242 .0538 .0392
 .500 .0226 .0473 .0370 .0222
 .700 .0026 .0061 .0137 .0157
 .900 .0032 .0162 .0159

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.300 QI = 3.930 HREF = .049

SECTION (1) LEFT VERTICAL TAIL DEPENDENT VARIABLE HU/HO

Z/8V .1590 .2990 .5320 .7650 .9050

X/C

.000 .0245 .0482 .0329 .0245
 .010 .0295
 .100 .0167 .0330 .0353 .0364
 .300 .0074 .0242 .0471 .0417
 .500 .0225 .0382 .0340 .0247
 .700 .0023 .0073 .0121 .0127
 .900 .0061 .0140 .0132

AEDC VA352 CH4B 02 ORB. LEFT MAIN NOZZLE

(ATKN29) (27 APR 74)

REFERENCE DATA

GREP = .8236 SQ. FT. YMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 PREP = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

SETA = .000 RM/L = 3.720
 S. FLAP = .000 ELEVON = .000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.067 QI = 3.940 HREF = .049

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X .0880 .1750 .2630 .4380 .7880

PHIN

.000 .0194 .0310 .0193 .0074
 25.000 .0229 .0473
 45.000 .0143 .0145 .0175 .0170
 65.000 .0531 .0470 .0462
 90.000 .0352 .0332 .0358 .0384
 135.000 .0209
 315.000 .0140

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.067 QI = 3.940 HREF = .049

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X .0880 .1750 .2630 .4380 .7880

PHIN

.000 .0467 .0717 .0472 .0130
 25.000 .0590 .0871
 45.000 .0172 .0160 .0139 .0145 .0288
 65.000 .0351 .0349 .0352
 90.000 .0375 .0358 .0355 .0305
 135.000 .0054
 315.000 .0373

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.067 QI = 3.940 HREF = .049

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X .0880 .1750 .2630 .4380 .7880

PHIN

.000 .0744 .0981 .0876 .0280
 25.000 .0768 .0921
 45.000 .0315 .0279 .0217 .0166 .0411
 65.000 .0454 .0470 .0633
 90.000 .0485 .0902 .0562 .0654
 135.000 .0032
 315.000 .0348

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q2 CR8. LEFT MAIN NOZZLE

(ATKN30) (27 APR 74)

REFERENCE DATA

PARAMETRIC DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE
 BETA = .000 RN/L = 2.000
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 94.933 QI = 1.986 HREF = .035

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0099	.0176	.0111	.0047	
25.000	.0111	.0214			
45.000	.0056	.0059	.0055	.0061	.0067
65.000	.0120	.0117		.0133	
90.000	.0148	.0138	.0159	.0175	
135.000	.0148				
315.000	.0073				

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 94.933 QI = 1.986 HREF = .035

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0285	.0429	.0277	.0086	
25.000	.0352	.0554			
45.000	.0102	.0093	.0075	.0058	.0077
65.000	.0142	.0137		.0117	
90.000	.0204	.0180	.0165	.0150	
135.000	.0029				
315.000	.0188				

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 94.933 QI = 1.986 HREF = .035

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0560	.0791	.0599	.0159	
25.000	.0692	.0879			
45.000	.0216	.0190	.0137	.0095	.0130
65.000	.0308	.0318		.0318	
90.000	.0391	.0366	.0365	.0358	
135.000	.0027				
315.000	.0411				

(ATKN31) (27 APR 74)

AEDC VA352 OH48 Q2 ORB. LEFT MAIN NOZZLE

REFERENCE DATA

SREF = .8238 SJ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 92.933 QI = .523 HREF = .018

SECTION (1) NOZZLE

DEPENDENT VARIABLE HU/HO

X .0880 .1750 .2630 .4380 .7880

PHIN

.0000 .0051 .0082 .0057 .0023
 25.000 .0053 .0104
 45.000 .0016 .0017 .0015 .0013 .0012
 65.000 .0036 .0020 .0023
 90.000 .0038 .0044 .0043 .0050
 135.000 .0065
 315.000 .0029

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 92.933 QI = .523 HREF = .018

SECTION (1) NOZZLE

DEPENDENT VARIABLE HU/HO

X .0880 .1750 .2630 .4380 .7880

PHIN

.0000 .0108 .0175 .0120 .0050
 25.000 .0126 .0232
 45.000 .0038 .0038 .0019 .0022 .0019
 65.000 .0041 .0030 .0034
 90.000 .0055 .0053 .0056 .0060
 135.000 .0020
 315.000 .0068

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 92.933 QI = .523 HREF = .018

SECTION (1) NOZZLE

DEPENDENT VARIABLE HU/HO

X .0880 .1750 .2630 .4380 .7880

PHIN

.0000 .0225 .0314 .0215 .0074
 25.000 .0277 .0401
 45.000 .0071 .0062 .0042 .0036 .0030
 65.000 .0039 .0045 .0052
 90.000 .0085 .0089 .0089 .0091
 135.000 .0029
 315.000 .0154

PARAMETRIC DATA

BETA = .000 RN/L = .500
 B-FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH4B (AEDC VA352)

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AEDC VA352 CH4B 02 CR8. LEFT MAIN NOZZLE

(ATRN32) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 1.000
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 93.400 Q1 = 1.000 HREF = .024

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0151	.0207	.0146	.0045	
25.000	.0192	.0249			
45.000	.0045	.0045	.0030	.0019	.0028
65.000	.0030	.0033	.0033		
90.000	.0077	.0083	.0071	.0061	
135.000	.0017				
315.000	.0100				

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 93.400 Q1 = 1.000 HREF = .024

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0297	.0356	.0287	.0091	
25.000	.0351	.0338			
45.000	.0107	.0095	.0074	.0042	.0037
65.000	.0072	.0071	.0077		
90.000	.0173	.0177	.0173	.0148	
135.000	.0022				
315.000	.0212				

MACH (1) = 8.000 ALPHA (3) = 45.000 TI = 93.400 Q1 = 1.000 HREF = .024

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0536	.0821	.0429	.0208	
25.000	.0837	.0775			
45.000	.0200	.0190	.0165	.0094	.0108
65.000	.0220	.0231	.0246		
90.000	.0316	.0549	.0583	.0564	
135.000	.0071				
315.000	.0442				

AEDC VA352 CH48 02 ORB. LEFT MAIN NOZZLE (ATKN33) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 1.250
 S-FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 94.250 Q1 = 1.253 HREF = .027

SECTION (1) NOZZLE

DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0187	.0248	.0174	.0061	
25.000	.0236	.0279			
45.000	.0063	.0062	.0045	.0030	.0038
65.000	.0043	.0045		.0046	
90.000	.0096	.0096	.0089	.0077	
135.000	.0019				
315.000	.0131				

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 94.250 Q1 = 1.253 HREF = .027

SECTION (1) NOZZLE

DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0328	.0404	.0336	.0104	
25.000	.0392	.0375			
45.000	.0126	.0109	.0078	.0051	.0049
65.000	.0087	.0097		.0110	
90.000	.0228	.0226	.0221	.0196	
135.000	.0023				
315.000	.0225				

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 02 ORB. LEFT MAIN NOZZLE

(ATKNS4) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 SREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = 1.900
 S-FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 94.900 Q1 = 1.534 HREF = .030

SECTION (1) NOZZLE

DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0220	.0282	.0201	.0069	
25.000	.0257	.0339			
45.000	.0069	.0066	.0055	.0033	.0041
65.000	.0066	.0066		.0061	
90.000	.0137	.0131	.0118	.0097	
135.000	.0023				
315.000	.0150				

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 94.900 Q1 = 1.534 HREF = .030

SECTION (1) NOZZLE

DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0389	.0494	.0388	.0122	
25.000	.0456	.0524			
45.000	.0151	.0133	.0098	.0063	.0063
65.000	.0156	.0149		.0165	
90.000	.0305	.0292	.0275	.0252	
135.000	.0027				
315.000	.0263				

AEDC VA352 CH48 Q2 CRB. LEFT MAIN NOZZLE (ATKN35) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RM/L = 1.750
 9.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.200 QI = 1.797 HREF = .033

SECTION (1) NOZZLE

DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0245	.0345	.0241	.0072	
25.000	.0310	.0440			
45.000	.0083	.0078	.0064	.0044	.0055
65.000	.0102	.0100		.0084	
90.000	.0176	.0158	.0150	.0134	
135.000	.0027				
315.000	.0168				

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.200 QI = 1.797 HREF = .033

SECTION (1) NOZZLE

DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0477	.0641	.0469	.0128	
25.000	.0576	.0725			
45.000	.0206	.0168	.0114	.0077	.0088
65.000	.0235	.0234		.0245	
90.000	.0344	.0332	.0319	.0308	
135.000	.0029				
315.000	.0334				

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q2 ORB. LEFT MAIN NOZZLE (ATKNS6) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = 2.000
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.967 QI = 1.984 HREF = .035

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X .0880 .1750 .2630 .4380 .7880

PHIN

.000 .0275 .0418 .0276 .0085
 25.000 .0349 .0347
 45.000 .0097 .0090 .0071 .0057 .0074
 65.000 .0126 .0131 .0110
 90.000 .0203 .0177 .0165 .0152
 135.000 .0027
 315.000 .0190

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.967 QI = 1.984 HREF = .035

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X .0880 .1750 .2630 .4380 .7880

PHIN

.000 .0562 .0773 .0561 .0162
 25.000 .0687 .0874
 45.000 .0210 .0186 .0143 .0098 .0126
 65.000 .0324 .0309 .0313
 90.000 .0391 .0367 .0364 .0363
 135.000 .0029
 315.000 .0411

MACH (1) = 8.000 ALPHA (3) = 45.000 TI = 94.967 QI = 1.984 HREF = .035

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X .0880 .1750 .2630 .4380 .7880

PHIN

.000 .0908 .1266 .1223 .0476
 25.000 .0831 .1072
 45.000 .0431 .0386 .0302 .0191 .0254
 65.000 .0709 .0608 .0672
 90.000 .0741 .0717 .0815 .1033
 135.000 .0080
 315.000 .0674

(ATK37) (27 APR 74)

AEDC VA352 CH48 Q2 CR9. LEFT MAIN NOZZLE

REFERENCE DATA

SPREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5903 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 2.250
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.200 QI = 2.341 HREF = .038

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0336	.0531	.0340	.0100	
25.000	.0413	.0707			
45.000	.0114	.0108	.0095	.0078	.0127
65.000	.0232	.0214		.0219	
90.000	.0238	.0220	.0216	.0201	
135.000	.0030				
315.000	.0244				

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.200 QI = 2.341 HREF = .038

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0661	.0910	.0665	.0188	
25.000	.0745	.0943			
45.000	.0242	.0209	.0162	.0116	.0209
65.000	.0450	.0403		.0425	
90.000	.0443	.0436	.0444	.0445	
135.000	.0030				
315.000	.0309				

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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(ATKNS8) (27 APR 74)

AEDC VA352 CH48 02 ORB. LEFT MAIN NOZZLE

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 2.500
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 6.000 ALPHA (1) = 30.000 TI = 95.550 QI = 2.536 HREF = .039

SECTION (1) NOZZLE

DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0353	.0579	.0380	.0098	
25.000	.0447	.0741			
45.000	.0129	.0117	.0095	.0094	.0143
65.000	.0256	.0238		.0860	
90.000	.0260	.0259	.0234	.0226	
135.000	.0035				
315.000	.0263				

MACH (1) = 6.000 ALPHA (2) = 35.000 TI = 95.550 QI = 2.536 HREF = .039

SECTION (1) NOZZLE

DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0671	.0922	.0739	.0210	
25.000	.0736	.0908			
45.000	.0255	.0225	.0162	.0120	.0267
65.000	.0409	.0442		.0475	
90.000	.0453	.0454	.0480	.0481	
135.000	.0031				
315.000	.0548				

(ATKNS9) (27 APR 74)

AEDC VA352 CH4B 02 CRB. LEFT MAIN NOZZLE

REFERENCE DATA

SRF = .0238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 2.750
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 96.100 QI = 2.816 HREF = .041

SECTION (1) NOZZLE

DEPENDENT VARIABLE HU/HO

X .0880 .1750 .2630 .4380 .7880

PHIN

.000 .0387 .0615 .0384 .0101
 25.000 .0475 .0789
 45.000 .0135 .0128 .0114 .0102 .0185
 65.000 .0296 .0280 .0332
 90.000 .0288 .0258 .0265 .0248
 135.000 .0034
 315.000 .0290

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 96.100 QI = 2.816 HREF = .041

SECTION (1) NOZZLE

DEPENDENT VARIABLE HU/HO

X .0880 .1750 .2630 .4380 .7880

PHIN

.000 .0679 .0960 .0770 .0233
 25.000 .0712 .0898
 45.000 .0271 .0249 .0183 .0136 .0298
 65.000 .0461 .0443 .0531
 90.000 .0471 .0512 .0541
 135.000 .0030
 315.000 .0590

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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(ATKN40) (27 APR 74)

AEDC VA352 CH48 02 ORB. LEFT MAIN NOZZLE

REFERENCE DATA

PARAMETRIC DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE
 BETA = .000 RV/L = 3.000
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 96.900 QI = 3.118 HREF = .044

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0393	.0629	.0392	.0105	
25.000	.0497	.0845			
45.000	.0142	.0131	.0115	.0120	.0214
65.000	.0305	.0308		.0410	
90.000	.0311	.0290	.0291	.0264	
135.000	.0038				
315.000	.0311				

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 96.900 QI = 3.118 HREF = .044

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X	.0880	.1750	.2630	.4380	.7880
PHIN					
.000	.0706	.0946	.0797	.0242	
25.000	.0735	.0919			
45.000	.0281	.0256	.0195	.0148	.0322
65.000	.0505	.0452		.0575	
90.000	.0476	.0492	.0538	.0599	
135.000	.0029				
315.000	.0546				

AEDC VA352 CH48 Q2 ORB. LEFT MAIN NOZZLE (ATKN41) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RM/L = 3.350
 B.FLAP = .000 ELEVON = .000
 HAWAHT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 97.600 QI = 3.536 HREF = .046

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X .0880 .1750 .2630 .4380 .7880

PHIN

.000 .0405 .0644 .0408 .0109
 25.000 .0312 .0632
 45.000 .0148 .0140 .0136 .0251
 65.000 .0325 .0328 .0486
 90.000 .0343 .0319 .0311 .0271
 135.000 .0039
 315.000 .0330

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 97.600 QI = 3.536 HREF = .046

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X .0880 .1750 .2630 .4380 .7880

PHIN

.000 .0719 .0981 .0624 .0245
 25.000 .0761 .0937
 45.000 .0293 .0263 .0199 .0368
 65.000 .0465 .0464 .0616
 90.000 .0500 .0505 .0544 .0632
 135.000 .0029
 315.000 .0538

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 C2 CR8. LEFT MAIN NOZZLE (ATK42) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 97.050 QI = 3.937 HREF = .049

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X .0880 .1750 .2630 .4380 .7880

PHIN

.000 .0431 .0677 .0431 .0113
 25.000 .0346 .0800
 45.000 .0153 .0143 .0127 .0145 .0275
 65.000 .0352 .0352 .0341
 90.000 .0377 .0349 .0342 .0286
 135.000 .0042
 315.000 .0363

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 97.050 QI = 3.937 HREF = .049

SECTION (1) NOZZLE DEPENDENT VARIABLE HU/HO

X .0880 .1750 .2630 .4380 .7880

PHIN

.000 .0758 .0990 .0861 .0266
 25.000 .0805 .0971
 45.000 .0309 .0287 .0225 .0165 .0410
 65.000 .0471 .0370 .0665
 90.000 .0499 .0319 .0567 .0642
 135.000 .0031
 315.000 .0535

AEDC VA332 CH4B 01 ORB. RCS CENTER

(ATKR10) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = -5.000 TI = 96.800 QI = 3.961 HREF = .049

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0577 .0068 .0210 .0387 .0385

MACH (1) = 8.000 ALPHA (2) = .000 TI = 96.800 QI = 3.961 HREF = .049

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0540 .0056 .0102 .0216 .0230

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 ORB. RCS CENTER

(ATKR11) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 EREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = .880
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -5.000 TI = 93.000 QI = .677 HREF = .020

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0588 .0079 .0927 .0249 .0211

MACH (1) = 8.000 ALPHA (2) = .000 TI = 93.000 QI = .677 HREF = .020

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0549 .0084 .0088 .0250 .0178

(ATKR12) (27 APR 74)

AEDC VA352 CH48 Q1 CRB. RCS CENTER

REFERENCE DATA

SREF = .0238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9603 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = .500
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 T1 = 93.400 Q1 = .524 HREF = .018

SECTION (1) RCS CENTER DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z 6.125 .0576 .0250 .0005 .0013 .0014

MACH (1) = 8.000 ALPHA (2) = 30.000 T1 = 93.400 Q1 = .524 HREF = .018

SECTION (1) RCS CENTER DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z 6.125 .0553 .0229 .0002 .0004 .0021

MACH (1) = 8.000 ALPHA (3) = 35.000 T1 = 93.400 Q1 = .524 HREF = .018

SECTION (1) RCS CENTER DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z 6.125 .0558 .0212 .0003 .0011 .0010

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 ORB. RCS CENTER

(ATKR13) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RM/L = 1.000
 8.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.100 Q1 = 1.003 HREF = .025

SECTION (1) RCS CENTER DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0529 .0227 .0003 .0008 .0030

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.100 Q1 = 1.003 HREF = .025

SECTION (1) RCS CENTER DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0496 .0209 .0002 .0009 .0034

MACH (1) = 8.000 ALPHA (3) = 40.000 TI = 94.100 Q1 = 1.003 HREF = .025

SECTION (1) RCS CENTER DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0485 .0201 .0004 .0020 .0034

(ATKR14) (27 APR 74)

AEDC VA392 CH4B 01 CRB. RCS CENTER

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 ZREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.550 QI =

BETA = .000 RN/L = 2.000

B.FLAP = .000 ELEVON = .000

HAW/HT = .900

HREF = 1.994 HREF = .035

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0827 .0232 .0005 .0020 .0017

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.550 QI =

BETA = .000 RN/L = 2.000

B.FLAP = .000 ELEVON = .000

HAW/HT = .900

HREF = 1.994 HREF = .035

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0493 .0220 .0003 .0008 .0044



DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA392)

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AEDC VA392 CH48 01 CRB. RCS CENTER

(ATKR15) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.3803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.867 QI = 3.955 HREF = .049

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0940 .0263 .0014 .0049 .0075

MACH (1) = 8.000

ALPHA (2) = 30.000

TI = 97.867

QI = 3.955

HREF = .049

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0530 .0259 .0007 .0031 .0030

MACH (1) = 8.000

ALPHA (3) = 35.000

TI = 97.867

QI = 3.955

HREF = .049

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0511 .0238 .0005 .0014 .0058

AEDC VA352 CH48 Q1 CRB. RCS CENTER

(ATKR17) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 DREF = 16.9919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 97.700 Q1 =

BETA = .000 RM/L = 3.720

S.FLAP = 10.000

ELEVON = 5.000

HAM/HT = .900

HREF = .049

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0533 .0233 .0006 .0032 .0035

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 97.700 Q1 =

BETA = .000

RM/L = 3.949

HREF = .049

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0506 .0238 .0006 .0018 .0049

PARAMETRIC DATA

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01 CR8. RCS CENTER

(ATKR18) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 97.200 Q1 =

SECTION (1) RCS CENTER DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0636 .0365 .0023 .0077 .0086

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 97.200 Q1 =

SECTION (1) RCS CENTER DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0664 .0448 .0021 .0098 .0087

PARAMETRIC DATA

BETA = -5.000 RN/L = 3.720
 S.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

3.933 HREF = .049

3.933 HREF = .049

AEDC VA352 CH48 01 ORB. RCS CENTER

(ATKR19) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.650 QI = 1.983 HREF = .035

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0697 .0471 .0011 .0049 .0137

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.650 QI = 1.983 HREF = .035

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0684 .0438 .0019 .0040 .0091

PARAMETRIC DATA

BETA = -5.000 RN/L = 2.000
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01 CR8. RCS CENTER

(ATKR20) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.900 QI = 1.980 HREF = .035

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0544 .0237 .0005 .0015 .0015

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.900 QI = 1.980 HREF = .035

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0499 .0223 .0003 .0006 .0018

PARAMETRIC DATA

BETA = .000 RV/L = 2.000
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

(ATKR21) (27 APR 74)

AEDC VA332 CH4B 01 CRB, RCS CENTER

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 6.000 ALPHA (1) = 30.000 T1 = 91.950 Q1 = .518 HREF = .017

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0736 .0448 .0009 .0011 .0017

MACH (1) = 6.000 ALPHA (2) = 35.000 T1 = 91.950 Q1 = .518 HREF = .017

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0701 .0405 .0003 .0017 .0050

PARAMETRIC DATA

BETA = -5.000 RN/L = .500
 B, FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01 ORB. RCS CENTER

(ATKR22) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .300
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 93.400 QI = .523 HREF = .018

SECTION (1) RCS CENTER DEPENDENT VARIABLE MU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0584 .0221 .0002 .0010 .0031

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 93.400 QI = .523 HREF = .018

SECTION (1) RCS CENTER DEPENDENT VARIABLE MU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0527 .0211 .0005 .0020 .0029

AEDC VA352 CH48 01 ORB. RCS CENTER

(ATK23) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5903 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 93.433 Q1 = .521 HREF = .018

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

8.125 .0555 .0253 .0003 .0010 .0024

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 93.433 Q1 = .521 HREF = .018

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

8.125 .0553 .0234 .0006 .0017 .0023

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 93.433 Q1 = .521 HREF = .018

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

8.125 .0528 .0204 .0004 .0011 .0018

PARAMETRIC DATA

BETA = .000 RN/L = .500
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01 ORB. RCS CENTER

(ATKR24) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RV/L = .500
 B.FLAP = 10.000 ELEVON = 10.000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 T1 = 93.233 Q1 = .523 HREF = .018

SECTION (1) RCS CENTER DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0738 .0393 .0027 .0046 .0044

MACH (1) = 8.000 ALPHA (2) = 30.000 T1 = 93.233 Q1 = .523 HREF = .018

SECTION (1) RCS CENTER DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0722 .0432 .0011 .0013 .0022

MACH (1) = 8.000 ALPHA (3) = 35.000 T1 = 93.233 Q1 = .523 HREF = .018

SECTION (1) RCS CENTER DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0702 .0396 .0006 .0024 .0029

AEDC VA352 OH48 01 ORB. RCS CENTER

(ATKR25) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 EREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.650 QI = 1.985 HREF = .035

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0536 .0230 .0004 .0016 .0020

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.650 QI = 1.985 HREF = .035

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0503 .0218 .0006 .0014 .0029

PARAMETRIC DATA

BETA = .000 RN/L = 2.000
 B/FLAP = 10.000 ELEVON = 10.000
 PAR/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 CRB. RCS CENTER

(ATKR26) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RN/L = 2.000
 B.FLAP = 10.000 ELEVON = 10.000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.450 QI = 1.983 HREF = .035

SECTION (1) RCS CENTER DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0695 .0466 .0011 .0090 .0131

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.450 QI = 1.983 HREF = .035

SECTION (1) RCS CENTER DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0681 .0441 .0021 .0039 .0095

AEDC VA352 CH48 01 ORB. RCS CENTER

(ATKR27) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0352 .0262 .0014 .0044 .0078

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0530 .0248 .0008 .0028 .0036

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) RCS CENTER

DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0503 .0232 .0009 .0026 .0026

PARAMETRIC DATA

BETA = .000 FN/L = 3.720
 B, FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 CRB. RCS CENTER

(ATKR28) (27 APR 74)

REFERENCE DATA

REF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RV/L = 3.720
 S.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.300 QI = 3.930 HREF = .049

SECTION (1) RCS CENTER DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0717 .0382 .0032 .0054 .0184

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.300 QI = 3.930 HREF = .049

SECTION (1) RCS CENTER DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0689 .0445 .0020 .0127 .0121

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.300 QI = 3.930 HREF = .049

SECTION (1) RCS CENTER DEPENDENT VARIABLE HU/HO

X/L .0760 .3000 .8000 .9000 .9750

Z

6.125 .0665 .0441 .0021 .0099 .0107

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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(ATK29) (27 APR 74)

AEDC VA352 CH48 C2 CEB. BASE PLATE

REFERENCE DATA

XREF = .0238 SQ.FT. XMRP = .0000 IN.
 YREF = 22.5803 IN. YMRP = .0000 IN.
 ZREF = 16.9919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.067 QI = 3.940 HREF = .049

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250
 Z
 5.600 .0024 .0024
 7.320 .0009 .0020

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.067 QI = 3.940 HREF = .049

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250
 Z
 5.600 .0017 .0021
 7.320 .0017 .0005

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.067 QI = 3.940 HREF = .049

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250
 Z
 5.600 .0033 .0054
 7.320 .0015 .0011

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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(ATKPSD) (27 APR 74)

AEDC VA352 CH48 02 ORB. BASE PLATE

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RNV/L = 2.000
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 94.933 QI = 1.986 HREF = .035

SECTION (1) BASE PLATE DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0010 .0013
 7.520 .0004 .0012

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 94.933 QI = 1.986 HREF = .035

SECTION (1) BASE PLATE DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0005 .0007
 7.520 .0013 .0008

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 94.933 QI = 1.986 HREF = .035

SECTION (1) BASE PLATE DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0009 .0027
 7.520 .0016 .0009

(ATKPS1) (27 APR 74)

AEDC VA352 CH48 C2 CRB. BASE PLATE

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CRF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 25.000 T1 = 92.933 Q1 = .523 HREF = .018

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z
 5.600 .0008 .0013
 7.520 .0010 .0015

MACH (1) = 8.000 ALPHA (2) = 30.000 T1 = 92.933 Q1 = .523 HREF = .018

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z
 5.600 .0013 .0010
 7.520 .0009 .0013

MACH (1) = 8.000 ALPHA (3) = 35.000 T1 = 92.933 Q1 = .523 HREF = .018

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z
 5.600 .0012 .0017
 7.520 .0022 .0010

PARAMETRIC DATA

BETA = .000 RM/L = .500
 S. FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q2 ORB. BASE PLATE

(ATKPS2) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. XGRP = .0000 IN.
 UREF = 22.9803 IN. YGRP = .0000 IN.
 BREF = 16.3919 IN. ZGRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RW/L = 1.000
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 93.400 QI = 1.000 HREF = .024

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0005 .0006
 7.920 .0000 .0009

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 93.400 QI = 1.000 HREF = .024

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0010 .0014
 7.920 .0018 .0011

MACH (1) = 8.000 ALPHA (3) = 45.000 TI = 93.400 QI = 1.000 HREF = .024

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0015 .0026
 7.920 .0017 .0017

AEDC VA352 OH4B OR ORB. BASE PLATE

(ATKPS3) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 94.250 Q1 = 1.253 HREF = .027

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0005 .0007
 7.520 .0004 .0004

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 94.250 Q1 = 1.253 HREF = .027

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0007 .0014
 7.520 .0019 .0011

PARAMETRIC DATA

BETA = .000 RN/L = 1.250
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 415

AEDC VA352 CH48 C2 CRB. BASE PLATE

(ATKPS4) (27 APR 74)

REFERENCE DATA

SRCP = .8238 50.FT. XMRP = .0000 IN.
 LRCF = 22.5803 IN. YMRP = .0000 IN.
 CRCF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RM/L = 1.500
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.900 QI = 1.534 HREF = .030

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0005 .0008
 7.320 .0012 .0004

MACH (1) = 8.000 ALPHA (2) = 33.000 TI = 94.900 QI = 1.534 HREF = .030

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0006 .0012
 7.320 .0016 .0012

AEDC VA352 CH48 02 ORB. BASE PLATE

(ATKPS5) (27 APR 74)

REFERENCE DATA

SREF = .8238 50.FT. XREF = .0000 IN.
 LREF = 22.5803 IN. YREF = .0000 IN.
 CREF = 16.3919 IN. ZREF = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.200 QI =

1.797 HREF = .033

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0003 .0007
 7.520 .0013 .0007

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.200 QI =

1.797 HREF = .033

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0008 .0021
 7.520 .0015 .0009

PARAMETRIC DATA

BETA = .000 RN/L = 1.750
 S, FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 417

AEDC VA352 CH48 C2 CR8. BASE PLATE

(ATK#36) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.9919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 2.000
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.967 QI = 1.984 HREF = .035

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0006 .0008
 7.320 .0014 .0007

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.967 QI = 1.984 HREF = .035

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0010 .0018
 7.320 .0016 .0010

MACH (1) = 8.000 ALPHA (3) = 45.000 TI = 94.967 QI = 1.984 HREF = .035

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0035 .0070
 7.320 .0031 .0022

AEDC VA352 CH48 O2 ORB. BASE PLATE

(ATKPS7) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. YMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.200 QI = 2.341 HREF = .038

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0005 .0008
 7.920 .0011 .0007

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.200 QI = 2.341 HREF = .038

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0018 .0023
 7.920 .0017 .0011

PARAMETRIC DATA

BETA = .000 RN/L = 2.250
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900



DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 419

AEDC VA352 CH48 Q2 QRB. BASE PLATE

(ATKPS8) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ. FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.990 QI = 2.536 HREF = .039

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z
 9.600 .0007 .0011
 7.920 .0013 .0008

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.990 QI = 2.536 HREF = .039

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z
 9.600 .0024 .0029
 7.920 .0017 .0010

PARAMETRIC DATA

BETA = .000 RM/L = 2.500
 S. FLAP = .000 ELEVON = .000
 HAM/HT = .900

(ATKPS9) (27 APR 74)

AEDC VA332 CH48 Q2 ORB. BASE PLATE

REFERENCE DATA

SREF = .9238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RNV/L = 2.750
 B-FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 96.100 QI = 2.816 HREF = .041

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0009 .0013
 7.520 .0010 .0005

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 96.100 QI = 2.816 HREF = .041

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0028 .0036
 7.520 .0015 .0010

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA392)

PAGE 421

AEDC VA392 CH48 02 QFB. BASE PLATE

(ATK40) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
LREF = 22.9803 IN. YMRP = .0000 IN.
BREF = 16.9919 IN. ZMRP = .0000 IN.
SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.000
B.FLAP = .000 ELEVON = .000
HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 96.900 Q1 = 3.118 HREF = .044

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0012 .0016
7.520 .0012 .0007

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 96.900 Q1 = 3.118 HREF = .044

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0029 .0040
7.520 .0014 .0011

AEDC VA352 CH4B O2 CRB. BASE PLATE

(ATKP41) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5603 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 97.600 Q1 = 3.536 HREF = .046

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0013
 7.520 .0008 .0006

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 97.600 Q1 = 3.536 HREF = .046

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0029 .0061
 7.520 .0013 .0013

PARAMETRIC DATA

BETA = .000 RN/L = 3.350
 B, FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q2 CRB. BASE PLATE

(ATK42) (27 APR 74)

REFERENCE DATA

SREF = .8238 90.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 97.050 Q1 = 3.937 HREF = .049

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0016 .0015
 7.520 .0013 .0005

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 97.050 Q1 = 3.937 HREF = .049

SECTION (1) BASE PLATE

DEPENDENT VARIABLE HU/HO

Y .0000 1.2250 1.9250

Z

5.600 .0033 .0050
 7.520 .0017 .0015

(ATK401) (27 APR 74)

AEDC VA352 OH48 OH+T10 CR8. OH48 PCO

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CRF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) OH48 PCO DEPENDENT VARIABLE HI/HO

X/L	.7800	.8050	.8290	.8620	.9630	1.0000	1.0140
Z							
8.295	.3324	.2266	.1237	.0603	.0000	.0000	.0000
8.540		.0000					
8.650		.0000					
8.727			.0000				
8.750				.0000		.0000	.0000
8.855				.0000			
8.942					.0000		
8.978						.0000	
9.056				.0000			
9.118				.0000			
9.222					.0000		
9.275					.0000		

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) OH48 PCO DEPENDENT VARIABLE HI/HO

X/L	.7800	.8050	.8290	.8620	.9630	1.0000	1.0140
Z							
8.295	.1955	.0993	.1035	.0610	.0000	.0000	.0000
8.540		.0000					
8.650		.0000					
8.727			.0000				
8.750					.0000		.0000
8.855				.0000			
8.942					.0000		
8.978						.0000	
9.056				.0000			
9.118				.0000			
9.222					.0000		
9.275					.0000		

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01+T10 ORB. OMS PCO (ATKMO1)

MACH (1) = 8.000 ALPHA (3) = .020 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) OMS PCO DEPENDENT VARIABLE HI/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295	.0461	.2245	.1147	.0803	.0000	.0000	.0000
8.540	.0000						
8.650	.0000						
8.727		.0000					
8.750				.0000	.0000	.0000	
8.855			.0000				
8.942		.0000					
8.978			.0000				
9.056			.0000				
9.118			.0000				
9.222				.0000	.0000		
9.275				.0000			

MACH (1) = 8.000 ALPHA (4) = 5.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) OMS PCO DEPENDENT VARIABLE HI/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295	.0406	.1504	.0969	.0502	.0000	.0000	.0000
8.540	.0000						
8.650	.0000						
8.727		.0000					
8.750				.0000	.0000	.0000	
8.855			.0000				
8.942		.0000					
8.978			.0000				
9.056			.0000				
9.118			.0000				
9.222				.0000	.0000		
9.275				.0000			

(ATKMO2) (27 APR 74)

AEDC VA352 CH48 01+T10 CRB. CH48 PCD

REFERENCE DATA

SRP = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 EREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

ALPHA = .000 RN/L = 3.720
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 BETA (1) = -2.000 T1 = 97.390 Q1 = 3.942 HREF = .049

SECTION (1) CH48 PCD

DEPENDENT VARIABLE HI/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .2538 .3494 .1903 .1121 .0000 .0000 .0000
 8.540 .0000
 8.650 .0000
 8.727 .0000
 8.750 .0000 .0000 .0000
 8.855 .0000
 8.942 .0000
 8.978 .0000
 9.056 .0000
 9.118 .0000
 9.222 .0000
 9.275 .0000

MACH (1) = 8.000 BETA (2) = .000 T1 = 97.390 Q1 = 3.942 HREF = .049

SECTION (1) CH48 PCD

DEPENDENT VARIABLE HI/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0461 .2245 .1147 .0603 .0000 .0000 .0000
 8.540 .0000
 8.650 .0000
 8.727 .0000
 8.750 .0000 .0000 .0000
 8.855 .0000
 8.942 .0000
 8.978 .0000
 9.056 .0000
 9.118 .0000
 9.222 .0000
 9.275 .0000

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01+T10 ORB. OMS PCO

(ATKHO3) (27 APR 74)

REFERENCE DATA

SRF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .680
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) OMS PCO DEPENDENT VARIABLE HI/HO

X/L .7800 .8030 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .2651 .1902 .0982 .0547 .0000 .0000 .0000
 8.540 .0000
 8.650 .0000
 8.727 .0000
 8.750 .0000 .0000 .0000
 8.855 .0000
 8.942 .0000
 8.978 .0000
 9.056 .0000
 9.118 .0000
 9.222 .0000
 9.275 .0000

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) OMS PCO DEPENDENT VARIABLE HI/HO

X/L .7800 .8030 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0273 .0467 .0456 .0491 .0000 .0000 .0000
 8.540 .0000
 8.650 .0000
 8.727 .0000
 8.750 .0000 .0000 .0000
 8.855 .0000
 8.942 .0000
 8.978 .0000
 9.056 .0000
 9.118 .0000
 9.222 .0000
 9.275 .0000

AEDC VA352 CH48 01+T10 CRB. OMS PCO (ATK403)

MACH (1) = 8.000 ALPHA (3) = .000 T1 = 93.425 Q1 = .682 HREF = .020

SECTION (1) OMS PCO

DEPENDENT VARIABLE HI/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295	.0130	.0559	.0633	.0485	.0000	.0000	.0000
8.540	.0000						
8.650	.0000						
8.727		.0000			.0000	.0000	.0000
8.750							
8.855		.0000		.0000			
8.942		.0000			.0000		
8.978				.0000			
9.056		.0000					
9.118		.0000					
9.222			.0000		.0000		
9.275					.0000		

MACH (1) = 8.000 ALPHA (4) = 5.000 T1 = 93.425 Q1 = .682 HREF = .020

SECTION (1) OMS PCO

DEPENDENT VARIABLE HI/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295	.0048	.0140	.0267	.0302	.0000	.0000	.0000
8.540	.0000						
8.650	.0000						
8.727		.0000			.0000	.0000	.0000
8.750				.0000			
8.855		.0000			.0000		
8.942				.0000			
8.978				.0000			
9.056		.0000			.0000		
9.118					.0000		
9.222						.0000	
9.275						.0000	

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01+T10 CR8. OMS P00

(ATKWD4) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
LREF = 22.5803 IN. YMRP = .0000 IN.
BREF = 16.3919 IN. ZMRP = .0000 IN.
SCALE = .0175 SCALE

PARAMETRIC DATA

ALPHA = .000 RN/L = .680
B.FLAP = .000 ELEVON = .000
HAW/HT = .900

MACH (1) = 8.000 BETA (1) = -2.000 T1 = 93.550 Q1 = .681 HREF = .020

SECTION (1) OMS P00

DEPENDENT VARIABLE HI/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0284 .1967 .1366 .0758 .0000 .0000 .0000
8.540 .0000
8.650 .0000
8.727 .0000
8.750 .0000 .0000 .0000
8.855 .0000
8.942 .0000
8.978 .0000
9.056 .0000
9.118 .0000
9.222 .0000
9.275 .0000

MACH (1) = 8.000 BETA (2) = .000 T1 = 93.550 Q1 = .681 HREF = .020

SECTION (1) OMS P00

DEPENDENT VARIABLE HI/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0130 .0359 .0633 .0485 .0000 .0000 .0000
8.540 .0000
8.650 .0000
8.727 .0000
8.750 .0000 .0000 .0000
8.855 .0000
8.942 .0000
8.978 .0000
9.056 .0000
9.118 .0000
9.222 .0000
9.275 .0000

(ATKMI0) (27 APR 74)

AEDC VA352 CH48 01 ORB, QMS P00

REFERENCE DATA

SPEC = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 CREF = 16.9919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RW/L = 3.720
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -5.000 TI = 96.800 Q1 = 3.961 HREF = .049

SECTION (1) QMS P00 DEPENDENT VARIABLE HU/H0

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .3244 .1593 .0888 .0507 .0161 .0158 .0146
 8.540 .2445
 8.650 .2899
 8.727 .1340
 8.750
 8.855 .0458 .0000 .0183
 8.942 .1209
 8.978 .0207
 9.056 .0561
 9.118 .0308
 9.222 .0507
 9.275 .0212

MACH (1) = 8.000 ALPHA (2) = .000 TI = 96.800 Q1 = 3.961 HREF = .049

SECTION (1) QMS P00 DEPENDENT VARIABLE HU/H0

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0448 .1311 .1198 .0712 .0345 .0375 .0311
 8.540 .2357
 8.650 .1857
 8.727 .1872
 8.750
 8.855 .0622 .0000 .0290
 8.942 .1258
 8.978 .0307
 9.056 .0598
 9.118 .0623
 9.222 .0528
 9.275 .0309

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01 CRB. OMS POD (ATKMH11) (27 APR 74)

REFERENCE DATA

XREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = .680
 B.FLAP = .000 ELEVON = .000
 MAX/HT = .900

MACH (1) = 8.000 ALPHA (1) = -5.000 TI = 93.000 QI = .677 HREF = .020

SECTION (1) OMS POD

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .1117 .0712 .0498 .0432 .0317 .0301 .0262
 8.540 .1588
 8.690 .2555
 8.727 .1486
 8.750
 8.855 .0674
 8.942 .1073
 8.978 .0193
 9.056 .0685
 9.118 .0301
 9.222 .0375
 9.275 .0133

MACH (1) = 8.000 ALPHA (2) = .000 TI = 93.000 QI = .677 HREF = .020

SECTION (1) OMS POD

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0082 .0336 .0621 .0907 .0255 .0278 .0212
 8.540 .0471
 8.690 .0327
 8.727 .1122
 8.750
 8.855 .0621
 8.942 .0407
 8.978 .0232
 9.056 .0223
 9.118 .0340
 9.222 .0288
 9.275 .0169

(ATKH12) (27 APR 74)

AEDC VA352 CH48 Q1 CR8. QMS P00

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .500
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 93.400 Q1 = .524 HREF = .018

SECTION (1) QMS P00

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z
 8.295 .0107 .0269 .0424 .0395 .0131 .0138 .0109
 8.540 .0341
 8.650 .0234
 8.727 .0639
 8.750 .0000 .0120
 8.855 .0339
 8.942 .0195
 8.978 .0172
 9.056 .0032
 9.118 .0089
 9.222 .0069
 9.275 .0033

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 93.400 Q1 = .524 HREF = .018

SECTION (1) QMS P00

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z
 8.295 .0046 .0139 .0177 .0151 .0057 .0062 .0042
 8.540 .0161
 8.650 .0108
 8.727 .0276
 8.750 .0000 .0038
 8.855 .0207
 8.942 .0090
 8.978 .0087
 9.056 .0037
 9.118 .0047
 9.222 .0068
 9.275 .0046

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MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 93.400 Q1 = .524 HREF = .018
 AEDC VA392 CH48 Q1 CRB. QMS PCO (ATK412)

SECTION (1) QMS PCO DEPENDENT VARIABLE HU/HO

X/L	.7800	.8050	.8290	.8620	.9630	1.0000	1.0140
2							
8.295	.0022	.0038	.0060	.0072	.0022	.0028	.0033
8.540		.0048					
8.650		.0043					
8.727			.0085				
8.750					.0000	.0038	
8.855				.0097			
8.942			.0040				
8.978					.0044		
9.056				.0055			
9.118				.0031			
9.222					.0051		
9.275					.0031		

(ATK113) (27 APR 74)

AEDC VA352 CH4B Q1 ORB. OMS PCO

REFERENCE DATA

SREF = .8238 50. FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RNV/L = 1.000
 B. FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.100 Q1 = 1.003 HREF = .025

SECTION (1) OMS PCO DEPENDENT VARIABLE HU/HO

X/L	.7800	.8050	.8290	.8620	.9630	1.0000	1.0140
Z							
8.295	.0052	.0179	.0200	.0176	.0053	.0050	.0037
8.540		.0214					
8.850		.0145					
9.727			.0347				
8.750						.0000	.0051
8.855				.0249			
8.942			.0107				.0092
8.978				.0033			
9.056				.0049			
9.118					.0068		
9.222					.0042		
9.275							

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.100 Q1 = 1.003 HREF = .025

SECTION (1) OMS PCO DEPENDENT VARIABLE HU/HO

X/L	.7800	.8050	.8290	.8620	.9630	1.0000	1.0140
Z							
8.295	.0020	.0024	.0038	.0066	.0019	.0023	.0050
8.540		.0033					
8.850		.0041					
9.727			.0050				
8.750						.0000	.0031
8.855				.0093			
8.942			.0049				.0048
8.978							
9.056				.0080			
9.118				.0033			
9.222					.0037		
9.275					.0031		

MACH (1) = 8.000 ALPHA (3) = 40.000 TI = 94.100 QI = 1.003 HREF = .025
 AEDC VA352 CH48 Q1 CRB. QMS PCD (ATK413)

SECTION (1) QMS PCD DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295	.0022	.0028	.0040	.0042	.0017	.0034	.0085
8.540		.0042					
8.650		.0067					
8.727			.0059				
8.750					.0000		.0074
8.855				.0056			
8.942			.0089				
8.978					.0064		
9.056				.0141			
9.118				.0057			
9.222					.0067		
9.275					.0069		

(ATK14) (27 APR 74)

AEDC VA352 CH48 01 CRB. CHS PCO

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 EREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 2.000
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.550 QI = 1.994 HREF = .035

SECTION (1) CHS PCO DEPENDENT VARIABLE HU/HO

X/L	.7800	.8050	.8290	.8620	.9630	1.0000	1.0140
Z							
8.295	.0061	.0290	.0376	.0303	.0060	.0052	.0037
8.540		.0384					
8.650		.0277					
8.727			.0508				
8.750				.0000	.0049		
8.855				.0297			
8.942				.0203			
8.978				.0132			
9.056				.0080			
9.118				.0059			
9.222				.0051			
9.275				.0036			

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.550 QI = 1.994 HREF = .035

SECTION (1) CHS PCO DEPENDENT VARIABLE HU/HO

X/L	.7800	.8050	.8290	.8620	.9630	1.0000	1.0140
Z							
8.295	.0064	.0048	.0041	.0087	.0038	.0035	.0050
8.540		.0078					
8.650		.0120					
8.727			.0068				
8.750				.0064	.0000	.0038	
8.855			.0075				
8.942				.0086			
8.978				.0133			
9.056				.0090			
9.118				.0037			
9.222				.0040			
9.275							

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(ATK115) (27 APR 74)

AEDC VA352 CH48 Q1 CRB. OMS PCO

REFERENCE DATA

PARAMETRIC DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE
 BETA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.867 Q1 = 3.955 HREF = .049
 MACH (2) = 30.000 TI = 97.867 Q1 = 3.955 HREF = .049

SECTION (1) OMS PCO

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0301 .1137 .0676 .0314 .0345 .0372 .0279
 8.540 .0820
 8.650 .0581
 8.727 .0639
 8.750
 8.855 .0293
 8.942 .0189
 8.978 .0105
 9.056 .0051
 9.118 .0057
 9.222 .0068
 9.275 .0046

SECTION (1) OMS PCO

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0391 .1032 .0666 .0682 .0096 .0116 .0109
 8.540 .1033
 8.650 .0463
 8.727 .0731
 8.750
 8.855 .0241
 8.942 .0164
 8.978 .0208
 9.056 .0130
 9.118 .0046
 9.222 .0071
 9.275 .0047

MACH (1) = 8.000 ALPHA (3) = 35.000 AEDC VA352 CH4B 01 QRB. CH4B PCO (ATRM15)
 = 97.867 Q1 = 3.955 HREF = .049

SECTION (1) CH4B PCO DEPENDENT VARIABLE HU/HQ

X/L .7800 .8050 .8250 .8620 .9630 1.0000 1.0140

Z

8.295	.0066	.0051	.0098	.0307	.0057	.0050	.0043
8.540	.0078						
8.650	.0101						
8.727		.0148					
8.750				.0000			.0052
8.855			.0214				
8.942		.0094					
8.978				.0125			
9.056		.0093					
9.118		.0043					
9.222				.0027			
9.275				.0030			

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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(ATK17) (27 APR 74)

AEDC VA352 CH48 Q1 CRB. OMS PCO

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.3803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = 3.720
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 97.700 Q1 = 3.949 HREF = .049

SECTION (1) OMS PCO DEPENDENT VARIABLE HU/HO

X/L .7800 .8090 .8290 .8620 .9630 1.0000 1.0140

Z

8.293 .0387 .1251 .0738 .0779 .0117 .0118 .0100
 8.540 .0973
 8.650 .0464
 8.727 .0648
 8.790
 8.855
 8.942 .0202
 8.978 .0167
 9.056 .0134
 9.118 .0050
 9.222 .0071
 9.275 .0048

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 97.700 Q1 = 3.949 HREF = .049

SECTION (1) OMS PCO DEPENDENT VARIABLE HU/HO

X/L .7800 .8090 .8290 .8620 .9630 1.0000 1.0140

Z

8.293 .0069 .0038 .0105 .0301 .0062 .0085 .0103
 8.540 .0092
 8.650 .0107
 8.727 .0160
 8.790
 8.855
 8.942 .0098
 8.978 .0218
 9.056 .0093
 9.118 .0043
 9.222 .0032
 9.275 .0032

(ATK118) (27 APR 74)

AEDC VA352 CH48 01 CR8, CMS PCD

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 ZREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RW/L = 3.720
 S.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 97.200 QI = 3.933 HREF = .049

SECTION (1) CMS PCD DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0675 .1981 .1134 .0651 .0185 .0170 .0123
 8.340 .1426
 8.650 .0768
 8.727 .0986
 8.750
 8.855 .0385
 8.942 .0300
 8.978 .0122
 9.056 .0044
 9.118 .0082
 9.222 .0044
 9.275 .0047

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 97.200 QI = 3.933 HREF = .049

SECTION (1) CMS PCD DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0703 .1542 .1042 .0661 .0251 .0237 .0200
 8.340 .1044
 8.650 .0453
 8.727 .0662
 8.750
 8.855 .0276
 8.942 .0164
 8.978 .0193
 9.056 .0093
 9.118 .0055
 9.222 .0036
 9.275 .0029

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(ATK119) (27 APR 74)

AEDC VA392 CH48 Q1 CR8. QMS P00

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.3803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RN/L = 2.000
 S.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.650 Q1 = 1.983 HREF = .035

SECTION (1) QMS P00

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0362 .1478 .0890 .0362 .0201 .0230 .0233
 8.540 .1081
 8.650 .0639
 8.727 .0813
 8.750
 8.855 .0376 .0000 .0091
 8.942 .0244
 8.978 .0111
 9.056 .0075
 9.118 .0077
 9.222 .0073
 9.275 .0053

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.650 Q1 = 1.983 HREF = .035

SECTION (1) QMS P00

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0775 .1619 .0700 .0495 .0406 .0304
 8.540 .1115
 8.650 .0790
 8.727 .0687
 8.750
 8.855 .0223 .0000 .0166
 8.942 .0232
 8.978 .0122
 9.056 .0085
 9.118 .0078
 9.222 .0045
 9.275 .0040

(ATK420) (27 APR 74)

AEDC VA352 CH48 Q1 CRB. OMS POD

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = 2.000
 B.FLAP = 10.000 ELEVON = 3.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 95.900 Q1 = 1.980 HREF = .035

SECTION (1) OMS POD

DEPENDENT VARIABLE HU/HO

X/L .7800 .8090 .8290 .8620 .9630 1.0000 1.0140

Z

8.293 .0067 .0288 .0363 .0297 .0063 .0055 .0043
 8.540 .0388
 8.650 .0284
 8.727 .0517
 8.750
 8.855 .0306
 8.942 .0213
 8.978 .0127
 9.056 .0077
 9.118 .0063
 9.222 .0053
 9.275 .0041

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 95.900 Q1 = 1.980 HREF = .035

SECTION (1) OMS POD

DEPENDENT VARIABLE HU/HO

X/L .7800 .8090 .8290 .8620 .9630 1.0000 1.0140

Z

8.293 .0062 .0080 .0045 .0074 .0043 .0046 .0072
 8.540 .0078
 8.650 .0120
 8.727 .0073
 8.750
 8.855 .0068
 8.942 .0083
 8.978 .0083
 9.056 .0120
 9.118 .0054
 9.222 .0041
 9.275 .0043

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AEDC VA352 CH48 01 ORB. OMS PCO

(ATKME1) (27 APR 74)

REFERENCE DATA

PARAMETRIC DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

BETA = -5.000 RV/L = .500
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 91.950 QI = .518 HREF = .017

SECTION (1) OMS PCO

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0303 .1101 .1026 .0763 .0627 .0563 .0434
 8.540 .1167
 8.650 .0611
 8.727 .1076
 8.750
 8.855 .0363 .0000 .0207
 8.942 .0305
 8.978 .0144
 9.056 .0049
 9.118 .0100
 9.222 .0058
 9.275 .0041

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 91.950 QI = .518 HREF = .017

SECTION (1) OMS PCO

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0175 .0612 .0852 .0741 .0293 .0218 .0157
 8.540 .0772
 8.650 .0404
 8.727 .0684
 8.750
 8.855 .0306 .0000 .0208
 8.942 .0256
 8.978 .0210
 9.056 .0043
 9.118 .0094
 9.222 .0043
 9.275 .0030

(ATK22) (27 APR 74)

AEDC VA352 CH48 01 CRD. CHS PCD

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CRF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .500
 S.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 93.400 QI = .523 HREF = .018

SECTION (1) CHS PCD

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0052 .0136 .0148 .0137 .0057 .0059 .0059
 8.540 .0155
 8.650 .0113
 8.727 .0230
 8.750 .0000 .0064
 8.855 .0185
 8.942 .0097
 8.978 .0085
 9.056 .0045
 9.118 .0051
 9.222 .0077
 9.275 .0045

MACH (1) = 8.000

ALPHA (2) = 35.000

TI =

93.400

QI =

.523

HREF =

.018

SECTION (1) CHS PCD

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0025 .0035 .0056 .0072 .0025 .0029 .0019
 8.540 .0041
 8.650 .0037
 8.727 .0076
 8.750 .0000 .0035
 8.855 .0091
 8.942 .0041
 8.978 .0038
 9.056 .0061
 9.118 .0038
 9.222 .0051
 9.275 .0035

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AEDC VA352 CH48 Q1 CRB. CHS POD

(ATK23) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = .900
 B.FLAP = 10.000 ELEVON = 10.000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 93.433 Q1 = .521 HREF = .018

SECTION (1) CHS POD

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0103 .0268 .0433 .0388 .0140 .0129 .0095
 8.540 .0333
 8.650 .0252
 8.727 .0629
 8.750
 8.855 .0338
 8.942 .0196
 8.978 .0168
 9.056 .0032
 9.118 .0089
 9.222 .0068
 9.275 .0034

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 93.433 Q1 = .521 HREF = .018

SECTION (1) CHS POD

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0051 .0143 .0163 .0158 .0059 .0058 .0047
 8.540 .0167
 8.650 .0114
 8.727 .0259
 8.750
 8.855 .0208
 8.942 .0094
 8.978 .0092
 9.056 .0041
 9.118 .0049
 9.222 .0083
 9.275 .0045

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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(ATK423)

AEDC VA352 CH48 01 CRB, CHS POD

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 93.433 QI = .521 HREF = .018

DEPENDENT VARIABLE HU/HO

SECTION (1) CHS POD

X/L .7800 .8090 .8290 .8620 .9630 1.0000 1.0140

Z						
8.295	.0024	.0036	.0038	.0070	.0014	.0096 .0149
8.540		.0045				
8.550		.0039				
8.727			.0079		.0000	.0063
8.750				.0090		
8.855						
8.942			.0042		.0036	
8.978						
9.056				.0059		
9.118				.0035		
9.222					.0053	
9.275					.0035	

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TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 CRB. OMS PCD

(ATK24) (27 APR 74)

REFERENCE DATA

PARAMETRIC DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE
 BETA = -5.000 RN/L = .500
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 93.233 QI = .523 HREF = .018
 MACH (2) = 30.000 ALPHA (2) = 93.233 QI = .523 HREF = .018

SECTION (1) OMS PCD

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0320 .1863 .1248 .0817 .0341 .0385 .0326
 8.340 .1387
 8.650 .0745
 8.727 .0923
 8.750
 8.855 .0435
 8.942 .0263
 8.978 .0160
 9.056 .0045
 9.118 .0087
 9.222 .0070
 9.275 .0036

SECTION (1) OMS PCD

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0262 .1051 .0995 .0741 .0624 .0554 .0447
 8.340 .1107
 8.650 .0581
 8.727 .1071
 8.750
 8.855 .0355
 8.942 .0278
 8.978 .0144
 9.056 .0045
 9.118 .0102
 9.222 .0053
 9.275 .0043

AEDC VA352 CH48 01 QFB. OMS PCO (ATK424)

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 93.233 QI = .523 HREF = .018

SECTION (1) OMS PCO DEPENDENT VARIABLE HU/HO

X/L	.7800	.8050	.8290	.8620	.9630	1.0000	1.0140
Z							
8.295	.0190	.0769	.0885	.0770	.0225	.0216	.0185
8.340		.0764					
8.650		.0403					
8.727			.0671				
8.750					.0000	.0202	
8.855				.0284			
8.942			.0250				
8.978					.0211		
9.056				.0045			
9.118				.0093			
9.222					.0046		
9.275					.0029		

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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(ATK25) (27 APR 74)

AEDC VA352 CH48 Q1 CRB. OMS POD

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.3803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = 2.000
 B.FLAP = 10.000 ELEVON = 10.000
 HAWAHT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.650 QI = 1.985 HREF = .035

SECTION (1) OMS POD

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0063 .0279 .0364 .0290 .0070 .0053 .0048
 8.540 .0376
 8.630 .0276
 8.727 .0519
 8.750
 8.855 .0309 .0000 .0049
 8.942 .0209
 8.978 .0136
 9.056 .0079
 9.118 .0060
 9.222 .0055
 9.275 .0040

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.650 QI = 1.985 HREF = .035

SECTION (1) OMS POD

DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0063 .0047 .0044 .0074 .0044 .0116 .0175
 8.540 .0074
 8.630 .0117
 8.727 .0073
 8.750
 8.855 .0065 .0000 .0067
 8.942 .0085
 8.978 .0085
 9.056 .0119
 9.118 .0054
 9.222 .0040
 9.275 .0041

(ATK426) (27 APR 74)

AEDC VA352 CH48 Q1 Q18. QMS PCO

REFERENCE DATA

SREF = .8238 SO.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.9919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RN/L = 2.000
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.450 QI = 1.983 HREF = .035

SECTION (1) QMS PCO DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z
 8.295 .0374 .1483 .0892 .0381 .0166 .0200 .0164
 8.540 .1088
 8.650 .0623
 8.727 .0804
 8.750 .0000 .0095
 8.855 .0368
 8.942 .0241
 8.978 .0119
 9.056 .0080
 9.118 .0081
 9.222 .0075
 9.275 .0051

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.450 QI = 1.983 HREF = .035

SECTION (1) QMS PCO DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z
 8.295 .0809 .1643 .0661 .0477 .0473 .0411 .0317
 8.540 .1071
 8.650 .0601
 8.727 .0706
 8.750 .0000 .0175
 8.855 .0224
 8.942 .0232
 8.978 .0113
 9.056 .0079
 9.118 .0081
 9.222 .0047
 9.275 .0042

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 CRB. CMS P00

(ATK27) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = 3.720
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) CMS P00 DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0306 .1157 .0691 .0310 .0266 .0374 .0305
 8.540 .0616
 8.650 .0566
 8.727 .0655
 8.750
 8.855 .0296
 8.942 .0196
 8.978 .0110
 9.056 .0090
 9.118 .0061
 9.222 .0073
 9.275 .0037

MACH (1) = 8.000 ALPHA (2) = 50.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) CMS P00 DEPENDENT VARIABLE HU/HO

X/L .7800 .8050 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0369 .1006 .0635 .0746 .0106 .0113 .0106
 8.540 .1026
 8.650 .0466
 8.727 .0666
 8.750
 8.855 .0217
 8.942 .0173
 8.978 .0203
 9.056 .0131
 9.118 .0052
 9.222 .0075
 9.275 .0047

(ATK27)

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) CHS POD DEPENDENT VARIABLE HU/HO

X/L	.7800	.8050	.8290	.8620	.9630	1.0000	1.0140
Z							
8.293	.0069	.0088	.0096	.0305	.0082	.0133	.0207
8.540		.0070					
8.650		.0098					
8.727			.0133				
8.750					.0000		.0075
8.855				.0220			
8.942			.0092				
8.978					.0116		
9.056				.0094			
9.118				.0043			
9.222					.0030		
9.275					.0031		

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 CEB. OMS POD

(ATK428) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RN/L = 3.720
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.300 Q1 = 3.930 HREF = .049

SECTION (1) OMS POD DEPENDENT VARIABLE HU/HO

X/L .7800 .8090 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0682 .1701 .1019 .0626 .0210 .0223 .0192
 8.540 .1373
 8.650 .0768
 8.727 .0909
 8.750
 8.855 .0425
 8.942 .0279
 8.978 .0141
 9.056 .0043
 9.118 .0076
 9.222 .0060
 9.275 .0035

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.300 Q1 = 3.930 HREF = .049

SECTION (1) OMS POD DEPENDENT VARIABLE HU/HO

X/L .7800 .8090 .8290 .8620 .9630 1.0000 1.0140

Z

8.295 .0474 .1442 .0903 .0477 .0215 .0216 .0184
 8.540 .1050
 8.650 .0999
 8.727 .0805
 8.750
 8.855 .0358
 8.942 .0239
 8.978 .0104
 9.056 .0075
 9.118 .0073
 9.222 .0059
 9.275 .0055

(ATK428)

AEDC VA352 CH48 O1 CRE. OMS P00

MACH (1) = 8.000 ALPHA (3) = 35.000 Y1 = 97.300 Q1 = 3.930 HREF = .049

SECTION (1) OMS P00 DEPENDENT VARIABLE HU/H0

X/L	.7800	.8050	.8290	.8620	.9630	1.0000	1.0140
Z							
8.295	.0620	.1267	.0804	.0451	.0383	.0437	.0359
8.540		.0928					
8.650		.0352					
8.727			.0655				
8.750				.0250	.0000	.0142	
8.855			.0219				
8.942							
8.978					.0112		
9.056				.0060			
9.116				.0069			
9.222					.0037		
9.275					.0032		

AEDC VA352 CH48 C1+T10 CRB. FUSELAGE Y=0.875

(ATKY01) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5603 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1493 .0311 .0467 .0398 .0424 .0293 .1065 .0121

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1429 .0279 .0437 .0367 .0284 .0271 .1003 .0118

MACH (1) = 8.000 ALPHA (3) = .000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0183 .0334 .0298 .0281 .0256 .0165 .0698 .0134

MACH (1) = 8.000 ALPHA (4) = 5.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0195 .0314 .0254 .0228 .0218 .0176 .0733 .0098

(ATK102) (27 APR 74)

AEDC VA352 CH48 01+110 ORB. FUSELAGE Y=0.875

REFERENCE DATA

SREF = .6236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

ALPHA = .000 RN/L = 3.720
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 BETA (1) = -2.000 TI = 97.350 QI = 3.942 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HI/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0275 .0364 .0371 .0314 .0323 .0273 .1287 .0079

MACH (1) = 8.000 BETA (2) = .000 TI = 97.350 QI = 3.942 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HI/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0183 .0334 .0298 .0281 .0256 .0165 .0698 .0134

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1+T10 CRB. FUSELAGE Y=0.875

(ATKY03) (27 APR 74)

REFERENCE DATA

SREF = .9238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = .680
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1143 .0358 .0346 .0255 .0150 .0144 .0165 .0183

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0606 .0252 .0345 .0264 .0141 .0172 .0146 .0139

MACH (1) = 8.000 ALPHA (3) = .000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0118 .0356 .0322 .0280 .0205 .0179 .0211 .0097

MACH (1) = 8.000 ALPHA (4) = 5.000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0173 .0217 .0217 .0213 .0151 .0192 .0321 .0057

(ATKY04) (27 APR 74)

AEDC VA352 CH48 01+T10 ORB. FUSELAGE Y=0.875

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 BETA (1) = -2.000 T1 = 93.550 Q1 = .681 HREF = .020

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

.875 .0251 .0189 .0234 .0217 .0170 .0127 .0410 .0100
 Y

MACH (1) = 8.000 BETA (2) = .000 T1 = 93.550 Q1 = .681 HREF = .020

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

.875 .0118 .0336 .0322 .0280 .0205 .0179 .0211 .0097
 Y

PARAMETRIC DATA

ALPHA = .000 RN/L = .680
 B-FLAP = .000 ELEVON = .000
 HAW/HT = .900



DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 O1+T10 ORB. FUSELAGE Y=0.875

(ATK105) (27 APR 74)

REFERENCE DATA

SRF = .6236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 T1 = 98.067 Q1 = 4.007 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (2) = -5.000 T1 = 98.067 Q1 = 4.007 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (3) = .000 T1 = 98.067 Q1 = 4.007 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000

(ATKY10) (27 APR 74)

AEDC VA352 CH48 01 CRB. FUSELAGE Y=0.875

REFERENCE DATA

SREF = .8238 50.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = -5.000 TI = 96.800 QI = 3.961 HREF = .049

SECTION (1) CRITTER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.2000	.3000	.4000	.5000	.6000	.7000	.8000	.9000
Y	.875	.0079	.0052	.0049	.0072	.0099	.0171	.0239

MACH (1) = 8.000 ALPHA (2) = .000 TI = 96.800 QI = 3.961 HREF = .049

SECTION (1) CRITTER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.2000	.3000	.4000	.5000	.6000	.7000	.8000	.9000
Y	.875	.0152	.0098	.0081	.0101	.0091	.0102	.0074

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 ORB. FUSELAGE Y=0.875

(ATKY11) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = -5.000 TI = 93.000 Q1 =

.677 HREF = .020

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0106 .0066 .0044 .0041 .0045 .0061 .0064 .0065

MACH (1) = 8.000 ALPHA (2) = .000 TI = 93.000 Q1 =

.677 HREF = .020

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0164 .0103 .0075 .0065 .0049 .0047 .0046 .0044

PARAMETRIC DATA

BETA = .000 RV/L = .680
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

AEDC VA352 CH48 01 ORB. FUSELAGE Y=0.875

(ATKY12) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .500
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 93.400 QI = .524 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0920 .0739 .0622 .0569 .0474 .0457 .0369 .0295

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 93.400 QI = .524 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1091 .0906 .0775 .0710 .0584 .0581 .0447 .0370

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 93.400 QI = .524 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1276 .1086 .0918 .0831 .0689 .0710 .0554 .0475

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 ORB. FUSELAGE Y=0.875

(ATK13) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. YMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 1.000
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.100 Q1 = 1.003 HREF = .025

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y .875 .1066 .0915 .0746 .0679 .0575 .0574 .0417 .0359

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.100 Q1 = 1.003 HREF = .025

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y .875 .1269 .1078 .0910 .0810 .0664 .0681 .0528 .0461

MACH (1) = 8.000 ALPHA (3) = 40.000 TI = 94.100 Q1 = 1.003 HREF = .025

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y .875 .1451 .1206 .1066 .0958 .0784 .0803 .0616 .0593

(ATRY14) (27 APR 74)

AEDC VA352 CH48 Q1 ORB. FUSELAGE Y=0.875

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 2.000
 B-FLAP = .000 ELEVON = .000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.550 QI = 1.994 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1076 .0895 .0762 .0659 .0547 .0622 .0585 .0707

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.550 QI = 1.994 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1267 .1071 .0921 .0797 .0662 .0817 .0883 .1104

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH4B (AEDC VA352)

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AEDC VA352 CH4B 01 ORB. FUSELAGE Y=0.875 (ATKY15) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RNV/L = 3.720
 B-FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 T1 = 97.867 Q1 = 3.955 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0897 .0733 .0617 .0562 .0471 .0384 .0763 .1108

MACH (1) = 8.000 ALPHA (2) = 30.000 T1 = 97.867 Q1 = 3.955 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1097 .0904 .0785 .0732 .0728 .1387 .2197 .2100

MACH (1) = 8.000 ALPHA (3) = 35.000 T1 = 97.867 Q1 = 3.955 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1293 .1113 .0942 .1008 .1506 .2744 .3001 .2487

AEDC VA352 CH48 01 CRB. FUSELAGE Y=0.875

(ATKY16) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 97.500 QI =

3.958 HREF = .049

SECTION (1) CRBITTER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L	.2000	.3000	.4000	.5000	.6000	.7000	.8000	.9000	
Y	.875	.1059	.0901	.0775	.0718	.0745	.1362	.2187	.2188

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B. FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR OH48 (AEDC VA332)

PAGE 467

AEDC VA332 OH48 01 CRB. FUSELAGE Y=0.875

(ATRY17) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 97.700 Q1 =

3.949 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HQ

X/L	.2000	.3000	.4000	.5000	.6000	.7000	.8000	.9000
Y	.875	.1103	.0909	.0791	.0739	.1406	.2186	.2113

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 97.700 Q1 =

3.949 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HQ

X/L	.2000	.3000	.4000	.5000	.6000	.7000	.8000	.9000
Y	.875	.1286	.1108	.0936	.0994	.1522	.2733	.3005

PARAMETRIC DATA

BETA = .0000 RN/L = 3.720
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

AEDC VA352 CH48 O1 ORB. FUSELAGE Y=0.875 (ATKY20) (27 APR 74)

REFERENCE DATA

SPREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 FN/L = 2.000
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.900 QI = 1.980 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1089 .0924 .0757 .0662 .0556 .0629 .0612 .0756

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.900 QI = 1.980 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1296 .1065 .0901 .0800 .0676 .0823 .0886 .1075

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH4B (AEDC VA352)

PAGE 489

AEDC VA352 CH4B 01 CRB. FUSELAGE Y=0.875

(ATKY22) (27 APR 74)

REFERENCE DATA

SREF = .8238 SO.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .500
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 93.400 Q1 = .523 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1095 .0905 .0777 .0710 .0596 .0492 .0450 .0384

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 93.400 Q1 = .523 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1269 .1084 .0916 .0846 .0715 .0709 .0551 .0463

AEDC VA352 CH48 Q1 CRB. FUSELAGE Y=0.875

(ATKY23) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 93.433 QI = .521 HREF = .018

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0914 .0735 .0613 .0577 .0475 .0473 .0360 .0306

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 93.433 QI = .521 HREF = .018

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1121 .0914 .0782 .0702 .0593 .0584 .0451 .0363

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 93.433 QI = .521 HREF = .018

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1285 .1096 .0944 .0858 .0704 .0727 .0558 .0457

PARAMETRIC DATA

BETA = .000 RN/L = .900
 B-FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA332)

PAGE 471

AEDC VA332 CH48 Q1 CRB. FUSELAGE Y=0.875 (ATKY25) (27 APR 74)

REFERENCE DATA

SREF = .9238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 2.000
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 94.650 Q1 = 1.985 HREF = .035

SECTION (1) CRBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1096 .0922 .0762 .0664 .0547 .0614 .0633 .0796

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 94.650 Q1 = 1.985 HREF = .035

SECTION (1) CRBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1297 .1074 .0895 .0806 .0679 .0816 .0874 .1074

AEDC VA352 CH49 01 CRB. FUSELAGE Y=0.875

(ATKY27) (27 APR 74)

REFERENCE DATA

SREF = .8236 90.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0911 .0749 .0638 .0587 .0476 .0594 .0747 .1109

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1109 .0907 .0781 .0736 .0734 .1390 .2199 .2116

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1301 .1090 .0940 .1008 .1501 .2687 .2992 .2507

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B-FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 473

AEDC VA352 CH48 C2 CRB. FUSELAGE Y=0.875

(ATKY29) (27 APR 74)

REFERENCE DATA

SREF = .9238 50.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 T1 = 97.067 Q1 = 3.940 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0886 .0755 .0624 .0589 .0465 .0575 .0748 .1153

MACH (1) = 8.000 ALPHA (2) = 30.000 T1 = 97.067 Q1 = 3.940 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1074 .0940 .0801 .0717 .0726 .1336 .2099 .2144

MACH (1) = 8.000 ALPHA (3) = 35.000 T1 = 97.067 Q1 = 3.940 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1265 .1060 .0936 .0980 .1380 .2563 .2974 .2489

AEDC VA352 CH48 Q2 CR8. FUSELAGE Y=0.875

(ATKYS0) (27 APR 74)

REFERENCE DATA

SREF = .8238 50. FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CRF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 2.000
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 94.933 QI = 1.986 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HQ

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y .875 .0899 .0741 .0599 .0548 .0444 .0458 .0342 .0342

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 94.933 QI = 1.986 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HQ

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y .875 .1029 .0937 .0773 .0671 .0553 .0621 .0538 .0664

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 94.933 QI = 1.986 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HQ

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y .875 .1254 .1058 .0888 .0813 .0679 .0829 .0959 .1184

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 OE ORB, FUSELAGE Y=0.875 (ATKY31) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .500
 B.FLAP = .000 ELEVON = .000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 92.933 QI = .523 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .0898 .0750 .0621 .0569 .0466 .0472 .0357 .0282

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 92.933 QI = .523 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1088 .0916 .0792 .0716 .0578 .0558 .0446 .0391

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 92.933 QI = .523 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1316 .1090 .0907 .0834 .0717 .0707 .0553 .0481

AEDC VA352 CH48 02 CRB. FUSELAGE Y=0.875

(ATKY32) (27 APR 74)

REFERENCE DATA

SREF = .6236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 EREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 1.000
 B-FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 93.400 QI = 1.000 HREF = .024

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1066 .0876 .0723 .0685 .0554 .0573 .0409 .0354

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 93.400 QI = 1.000 HREF = .024

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1301 .1092 .0892 .0812 .0665 .0679 .0521 .0471

MACH (1) = 8.000 ALPHA (3) = 45.000 TI = 93.400 QI = 1.000 HREF = .024

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1602 .1380 .1184 .1094 .0880 .0899 .0672 .0647

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH4B (AEDC VA352)

PAGE 477

AEDC VA352 CH4B C2 CRB. FUSELAGE Y=0.875

(ATKY33) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 18.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = 1.250
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.250 QI = 1.253 HREF = .027

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HQ

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1049 .0886 .0749 .0672 .0535 .0563 .0413 .0373

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.250 QI = 1.253 HREF = .027

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HQ

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1236 .1071 .0880 .0798 .0646 .0682 .0526 .0485

AEDC VA352 CH48 C2 CR9. FUSELAGE Y=0.875

(ATNY34) (27 APR 74)

REFERENCE DATA

SREF = .8239 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 EREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.900 QI = 1.534 HREF = .030

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1083 .0900 .0746 .0663 .0537 .0566 .0426 .0420

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.900 QI = 1.534 HREF = .030

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1323 .1062 .0687 .0787 .0642 .0705 .0570 .0621

PARAMETRIC DATA

BETA = .000 RW/L = 1.900
 G.FLAP = .000 ELEVON = .000
 HAWAHT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 02 ORB. FUSELAGE Y=0.875

(ATKY35) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 1.750
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.200 QI = 1.797 HREF = .033

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y .875 .1048 .0904 .0737 .0659 .0552 .0576 .0486 .0536

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.200 QI = 1.797 HREF = .033

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y .875 .1248 .1062 .0891 .0789 .0648 .0752 .0719 .0852

AEDC VA352 Q448 Q2 QFB. FUSELAGE Y=0.875

(ATK36) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.967 QI = 1.984 HREF = .035

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HQ

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1083 .0921 .0759 .0673 .0551 .0594 .0553 .0667

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.967 QI = 1.984 HREF = .035

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HQ

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1299 .1059 .0900 .0803 .0667 .0800 .0922 .1148

MACH (1) = 8.000 ALPHA (3) = 45.000 TI = 94.967 QI = 1.984 HREF = .035

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HQ

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1600 .1383 .1197 .1069 .0871 .0971 .0900 .1178

PARAMETRIC DATA

BETA = .000 RN/L = 2.000
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .500

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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(ATK37) (27 APR 74)

AEDC VA352 CH48 Q2 ORB. FUSELAGE Y=0.873

REFERENCE DATA

SREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = 2.250
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.200 QI = 2.341 HREF = .038

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y .873 .1048 .0916 .0758 .0673 .0559 .0660 .0758 .1029

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.200 QI = 2.341 HREF = .038

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y .873 .1288 .1070 .0887 .0804 .0707 .1009 .1398 .1669

AEDC VA352 CH48 02 CRB. FUSELAGE Y=0.875 (ATKY38) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.550 Q1 = 2.536 HREF = .039

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1048 .0949 .0769 .0688 .0589 .0725 .0888 .1170

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.550 Q1 = 2.536 HREF = .039

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1257 .1060 .0915 .0837 .0737 .1180 .1649 .1881

PARAMETRIC DATA

BETA = .000 RN/L = 2.500
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q2 OR2. FUSELAGE Y=0.875 (ATKYS9) (27 APR 74)

REFERENCE DATA

SREF = .8235 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

SETA = .000 RM/L = 2.750
 B.FLA° = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 96.100 QI = 2.816 HREF = .041

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y .875 .1094 .0948 .0724 .0685 .0605 .0804 .1123 .1445

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 96.100 QI = 2.816 HREF = .041

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y .875 .1238 .1060 .0919 .0852 .0837 .1404 .2038 .2151

AEDC VA352 OH48 OR ORB. FUSELAGE Y=0.875

(ATKY40) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.000
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 96.900 QI = 3.118 HREF = .044

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y .875 .1065 .0935 .0784 .0704 .0612 .0874 .1253 .1623

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 96.900 QI = 3.118 HREF = .044

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y .875 .1216 .1031 .0917 .0903 .0959 .1737 .2423 .2311

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 02 ORB. FUSELAGE Y=0.875 (ATKY41) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.350
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 97.600 QI = 3.536 HREF = .046

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1041 .0928 .0772 .0716 .0641 .1044 .1581 .1868

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 97.600 QI = 3.536 HREF = .046

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .2000 .3000 .4000 .5000 .6000 .7000 .8000 .9000

Y

.875 .1258 .1069 .0920 .0934 .1112 .2096 .2770 .2411

AEDC VA352 CH48 Q2 ORB. FUSELAGE Y=0.875 (ATKY42) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XGRP = .0000 IN.
 LREF = 22.5803 IN. YGRP = .0000 IN.
 BREF = 16.3919 IN. ZGRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000

TI =

97.050 QI =

3.937 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.2000	.3000	.4000	.5000	.6000	.7000	.8000	.9000	
Y	.875	.1033	.0948	.0823	.0718	.0720	.1258	.2058	.2123

MACH (1) = 8.000 ALPHA (2) = 35.000

TI =

97.050 QI =

3.937 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L	.2000	.3000	.4000	.5000	.6000	.7000	.8000	.9000	
Y	.875	.1292	.1071	.0929	.0994	.1349	.2579	.3003	.2484

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 CL+T10 ORB. WING UPPER CREASE

(ATKCO1) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0551 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0609 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (3) = .000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0296 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (4) = 5.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0137 .0000 .0000 .0000 .0000

AEDC VA332 CH4B 01+110 ORB. WING UPPER CREASE

(ATK002) (27 APR 74)

REFERENCE DATA

SREF = .4238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 BETA (1) = -2.000 T1 = 97.350 Q1 = 3.942 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HI/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0373 .0000 .0000 .0000 .0000

MACH (1) = 8.000 BETA (2) = .000 T1 = 97.350 Q1 = 3.942 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HI/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0296 .0000 .0000 .0000 .0000

PARAMETRIC DATA

ALPHA = .000 RN/L = 3.720
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01+110 CRB. WING UPPER CREASE

(ATK003) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CREF = 16.5919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RM/L = .680
 B, FLAP = .000 ELEVON = .020
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) CRBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0320 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) CRBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0235 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (3) = .000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) CRBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0122 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (4) = 5.000 TI = 93.425 QI = .682 HREF = .020

SECTION (1) CRBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0065 .0000 .0000 .0000 .0000

AEDC VA352 CH48 01+110 CR3. WING UPPER CREASE

(ATKCD4) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 BETA (1) = -2.000 T1 = 93.550 Q1 = .681 HREF = .020

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HI/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0182 .0000 .0000 .0000 .0000

MACH (1) = 8.000 BETA (2) = .000 T1 = 93.550 Q1 = .681 HREF = .020

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HI/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0122 .0000 .0000 .0000 .0000

PARAMETRIC DATA

ALPHA = .000 RV/L = .680
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH4B (AEDC VA352)

PAGE 491

AEDC VA352 CH4B 01+110 CRB. WING UPPER CREASE

(ATK005) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5603 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 TI = 98.067 QI = 4.007 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0000 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 98.067 QI = 4.007 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0000 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (3) = .000 TI = 98.067 QI = 4.007 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0000 .0000 .0000 .0000 .0000

AEDC VA352 CH4B Q1 ORB. WING UPPER CREASE (ATKC10) (27 APR 74)

REFERENCE DATA

SREF = .8238 50. FT. YMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = -5.000 TI = 96.800 Q1 = 3.961 HREF = .043

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0375 .0177 .0467 .0303 .0322

MACH (1) = 8.000 ALPHA (2) = .000 TI = 96.800 Q1 = 3.961 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0255 .0097 .0189 .0102 .0165

PARAMETRIC DATA

BETA = .000 RV/L = 3.720
 B. FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01 ORB. WING UPPER CREASE (ATKCI1) (27 APR 74)

REFERENCE DATA

SREF = .9238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .680
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -5.000 TI = 93.000 QI = .677 HREF = .020

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0159 .0080 .0150 .0199 .0371

MACH (1) = 8.000 ALPHA (2) = .000 TI = 93.000 QI = .677 HREF = .020

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0121 .0036 .0085 .0034 .0247

AEDC VA352 OH48 01 QFB. WING UPPER CREASE

(ATKC12) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 EREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = .500
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 93.400 QI = .524 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0040 .0011 .0015 .0013 .0011

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 93.400 QI = .524 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0026 .0007 .0010 .0000 .0011

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 93.400 QI = .524 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0023 .0007 .0006 .0006 .0014

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01 ORB. WING UPPER CREASE (ATK13) (27 APR 74)

REFERENCE DATA

SREP = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5603 IN. YMRP = .0000 IN.
 BREF = 16.5919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RNV/L = 1.000
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.100 QI = 1.003 HREF = .025

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0027 .0007 .0012 .0001 .0009

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.100 QI = 1.003 HREF = .025

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0022 .0006 .0007 .0013 .0008

MACH (1) = 8.000 ALPHA (3) = 40.000 TI = 94.100 QI = 1.003 HREF = .025

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0019 .0005 .0005 .0008 .0020

AEDC VA352 OH48 Q1 ORB. WING UPPER CREASE (ATKC14) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. YMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.550 QI = 1.994 HREF = .035

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0026 .0007 .0010 .0008 .0014

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.550 QI = 1.994 HREF = .035

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0020 .0005 .0006 .0005 .0008

PARAMETRIC DATA

SETA = .000 RN/L = 2.000
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01 ORB. WING UPPER CREASE

(ATKC15) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 18.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RNV/L = 3.720
 B-FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.867 QI = 3.955 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0041 .0017 .0022 .0011 .0034

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.867 QI = 3.955 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0027 .0007 .0011 .0009 .0027

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.867 QI = 3.955 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0018 .0004 .0008 .0020 .0016

AEDC VA352 CH48 Q1 CR8. WING UPPER CREASE

(ATKCL7) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 97.700 QI = 3.949 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

82.000 .0026 .0007 .0012 .0003 .0029

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 97.700 QI = 3.949 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

82.000 .0018 .0004 .0007 .0019 .0020

PARAMETRIC DATA

BETA = .000 RM/L = 3.720
 S.FLAP = 10.000 ELEVON = 5.000
 HAM/HT = .900



DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01 CR8. WING UPPER CREASE

(ATKC18) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 EREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 97.200 QI = 3.933 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0057 .0019 .0031 .0008 .0057

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 97.200 QI = 3.933 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0046 .0019 .0034 .0036 .0096

PARAMETRIC DATA

BETA = -5.000 RN/L = 3.720
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

AEDC VA352 CH4B Q1 CRB. WING UPPER CREASE

(ATKC19) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.2803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.650 Q1 = 1.983 HREF = .035

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0078 .0029 .0034 .0032 .0024

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.650 Q1 = 1.983 HREF = .035

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0051 .0015 .0023 .0012 .0032

PARAMETRIC DATA

BETA = -5.000 RN/L = 2.000
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 Q1 CR8. WING UPPER CREASE (ATKC20) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.900 QI = 1.980 HREF = .035

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0027 .0007 .0010 .0005 .0008

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.900 QI = 1.980 HREF = .035

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0020 .0005 .0006 .0005 .0006

PARAMETRIC DATA

BETA = .000 RN/L = 2.000
 B.FLAP = 10.000 ELEVON = 5.000
 HAM/HT = .900

AEDC VA352 CH48 Q1 ORB. WING UPPER CREASE

(ATK21) (27 APR 74)

REFERENCE DATA

SPREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5903 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 91.950 Q1 = .518 HREF = .017

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

82.000 .0074 .0022 .0027 .0019 .0013

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 91.950 Q1 = .518 HREF = .017

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

82.000 .0048 .0012 .0018 .0009 .0019

PARAMETRIC DATA

BETA = -5.000 RN/L = .500
 S.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .500

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01 ORB. WING UPPER CREASE

(ATKCE2) (27 APR 74)

REFERENCE DATA

SREF = .0238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 EREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .500
 B.FLAP = 10.000 ELEVON = 9.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 93.400 Q1 = .523 HREF = .016

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0026 .0007 .0014 .0004 .0012

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 93.400 Q1 = .523 HREF = .016

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0022 .0007 .0010 .0007 .0025

AEDC VA332 CH4B 01 CRB, WING UPPER CREASE

(ATK23) (27 APR 74)

REFERENCE DATA

SPREF = .9236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 EREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 93.433 QI =

.521 HREF = .018

SECTION (1) CRBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0039 .0013 .0020 .0009 .0010

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 93.433 QI =

.521 HREF = .018

SECTION (1) CRBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0030 .0007 .0009 .0007 .0013

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 93.433 QI =

.521 HREF = .018

SECTION (1) CRBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0024 .0007 .0010 .0006 .0012

PARAMETRIC DATA

BETA = .000 RN/L = .500
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR OH48 (AEDC VA392)

PAGE 503

AEDC VA352 OH48 Q1 CRB. WING UPPER CREASE

(ATKCC24) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 EREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RN/L = .500
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 T1 = 93.233 Q1 = .523 HREF = .018

SECTION (1) CRBITTER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0115 .0034 .0042 .0025 .0029

MACH (1) = 8.000 ALPHA (2) = 30.000 T1 = 93.233 Q1 = .523 HREF = .018

SECTION (1) CRBITTER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0069 .0019 .0025 .0016 .0013

MACH (1) = 8.000 ALPHA (3) = 35.000 T1 = 93.233 Q1 = .523 HREF = .018

SECTION (1) CRBITTER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0048 .0015 .0017 .0011 .0032

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 506

AEDC VA352 CH48 Q1 ORB. WING UPPER CREASE

(ATK23) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.650 Q1 = 1.985 HREF = .035

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

RH1

82.000 .0026 .0007 .0009 .0006 .0016

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.650 Q1 = 1.985 HREF = .035

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

RH1

82.000 .0020 .0005 .0007 .0008 .0014

PARAMETRIC DATA

BETA = .000 RN/L = 2.000
 P.FLAP = 10.000 ELEVON = 10.000
 HAN/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 907

AEDC VA352 CH48 Q1 CRB. WING UPPER CREASE

(ATK26) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RN/L = 2.000
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.450 Q1 = 1.983 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0078 .0025 .0035 .0019 .0019

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.450 Q1 = 1.983 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0049 .0015 .0025 .0015 .0035

AEDC VA352 CH48 Q1 ORB. WING UPPER CREASE

(ATK27) (27 APR 74)

REFERENCE DATA

SREF = .0238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE MU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0040 .0022 .0021 .0014 .0039

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE MU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0028 .0007 .0011 .0013 .0026

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE MU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0019 .0004 .0008 .0013 .0026

PARAMETRIC DATA

BETA = .000 RM/L = 3.720
 B.FLAP = 10.000 ELEVON = 10.000
 HAM/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 509

AEDC VA352 CH48 01 ORB. WING UPPER CREASE

(ATK28) (27 APR 74)

REFERENCE DATA

SREF = .9238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9603 IN. YMRP = .0000 IN.
 SREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RV/L = 3.720
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.300 QI = 3.930 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0174 .0037 .0078 .0062 .0042

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.300 QI = 3.930 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0077 .0030 .0051 .0033 .0082

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.300 QI = 3.930 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .4000 .5000 .6000 .7000 .9000

PHI

62.000 .0043 .0018 .0032 .0023 .0101

AEDC VA352 CH48 01+T10 ORB. FUSELAGE Z=7.525

(ATKFO1) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = -10.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0447 .0476 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0296 .0320 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (3) = .000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0290 .0233 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (4) = 5.000 TI = 97.600 QI = 3.935 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0195 .0163 .0000 .0000 .0000 .0000

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAM/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 511

AEDC VA352 CH48 01+110 CRB. FUSELAGE Z=7.525

(ATKF02) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

ALPHA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAM/HT = .900

MACH (1) = 8.000 BETA (1) = -2.000 TI = 97.350 QI = 3.942 HREF = .049

SECTION (1) CRBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0362 .0323 .0000 .0000 .0000 .0000

MACH (1) = 8.000 BETA (2) = .000 TI = 97.350 QI = 3.942 HREF = .049

SECTION (1) CRBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0290 .0233 .0000 .0000 .0000 .0000

(ATKPOS) (27 APR 74)

AEDC VA392 CH48 01+T10 CRB. FUSELAGE Z=7.525

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.3603 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = .680
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 T1 = 93.425 Q1 = .020 HREF = .020

SECTION (1) ORBITTER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0281 .0509 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (2) = -5.000 T1 = 93.425 Q1 = .020 HREF = .020

SECTION (1) ORBITTER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0176 .0126 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (3) = .000 T1 = 93.425 Q1 = .020 HREF = .020

SECTION (1) ORBITTER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0197 .0157 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (4) = 5.000 T1 = 93.425 Q1 = .020 HREF = .020

SECTION (1) ORBITTER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0131 .0093 .0000 .0000 .0000 .0000

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 513

AEDC VA352 CH48 01+110 ORB. FUSELAGE Z=7.325

(ATKFD4) (27 APR 74)

REFERENCE DATA

SREF = .0238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 DREF = 16.9919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

ALPHA = .000 RM/L = .680
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 BETA (1) = -2.000 TI = 93.550 QI = .681 HREF = .020

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.325 .0222 .0220 .0000 .0000 .0000 .0000

MACH (1) = 8.000 BETA (2) = .000 TI = 93.550 QI = .681 HREF = .020

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.325 .0197 .0157 .0000 .0000 .0000 .0000

(ATKF05) (27 APR 74)

AEDC VA352 CH48 01+110 ORB. FUSELAGE Z=7.525

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -10.000 TI = 98.067 QI = 4.007 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0000 .0000 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (2) = -5.000 TI = 98.067 QI = 4.007 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0000 .0000 .0000 .0000 .0000 .0000

MACH (1) = 8.000 ALPHA (3) = .000 TI = 98.067 QI = 4.007 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HI/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0000 .0000 .0000 .0000 .0000 .0000

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH4B (AEDC VA352)

PAGE 515

AEDC VA352 CH4B 01 ORB. FUSELAGE Z=7.525 (ATKF10) (27 APR 74)

REFERENCE DATA

SREF = .0236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 0. FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = -5.000 TI = 96.800 QI = 3.961 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0196 .0146 .0105 .0141 .0320 .0331

MACH (1) = 8.000 ALPHA (2) = .000 TI = 96.800 QI = 3.961 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0253 .0257 .0204 .0130 .0204 .0226

(ATKFI1) (27 APR 74)

AEDC VA352 OH48 Q1 CRB. FUSELAGE Z=7.525

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 CREF = 16.9919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = -5.000 TI = 93.000 QI =

.677 HREF = .020

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0206 .0165 .0089 .0038 .0039 .0059

MACH (1) = 8.000 ALPHA (2) = .000 TI = 93.000 QI =

.677 HREF = .020

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0160 .0126 .0070 .0041 .0043 .0040

PARAMETRIC DATA

BETA = .000 RN/L = .660
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 517

AEDC VA352 CH48 01 ORB. FUSELAGE Z=7.525

(ATKFI2) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = .500
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 93.400 QI = .524 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0149 .0126 .0287 .0228 .0090 .0035

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 93.400 QI = .524 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0156 .0136 .0324 .0109 .0053 .0012

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 93.400 QI = .524 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0162 .0178 .0210 .0086 .0043 .0003

(ATK13) (27 APR 74)

AEDC VA352 OH48 Q1 ORB. FUSELAGE Z=7.525

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.100 Q1 = 1.003 HREF = .025

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0152 .0125 .0371 .0137 .0055 .0012

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.100 Q1 = 1.003 HREF = .025

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0161 .0169 .0273 .0091 .0040 .0007

MACH (1) = 8.000 ALPHA (3) = 40.000 TI = 94.100 Q1 = 1.003 HREF = .025

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0161 .0236 .0218 .0081 .0015 .0010

PARAMETRIC DATA

BETA = .000 RN/L = 1.000
 S.FLAP = .000 ELEVON = .000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA392)

PAGE 519

AEDC VA392 CH48 Q1 CR8. FUSELAGE Z=7.525 (ATK14) (27 APR 74)

REFERENCE DATA

SREF = .6238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.9919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = 2.000
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 95.550 Q1 = 1.994 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000
 Z
 7.525 .0152 .0111 .0325 .0205 .0067 .0021

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 95.550 Q1 = 1.994 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000
 Z
 7.525 .0153 .0179 .0331 .0125 .0048 .0010

AEDC VA392 CH48 Q1 ORB. FUSELAGE Z=7.525

(ATKFI5) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.9803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RN/L = 3.720
 B.FLAP = .000 ELEVON = .000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.867 Q1 = 3.955 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0138 .0140 .0218 .0438 .0312 .0081

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.867 Q1 = 3.955 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0153 .0112 .0234 .0472 .0100 .0042

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.867 Q1 = 3.955 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0157 .0176 .0280 .0215 .0063 .0016

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 521

AEDC VA352 CH48 Q1 ORB. FUSELAGE Z=7.525

(ATKF17) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = 3.720
 B.FLAP = 10.000 ELEVON = 5.000
 HAM/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 97.700 QI = 3.949 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0152 .0104 .0232 .0460 .0094 .0042

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 97.700 QI = 3.949 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0158 .0183 .0292 .0217 .0064 .0018

(ATKFI8) (27 APR 74)

AEDC VA352 CH48 01 CR8. FUSELAGE Z=7.525

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 97.200 Q1 = 3.933 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0186 .0149 .0268 .0471 .0640 .0150

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 97.200 Q1 = 3.933 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0214 .0207 .0328 .0683 .0683 .0185

PARAMETRIC DATA

BETA = -5.000 RN/L = 3.720
 P.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

PAGE 523

AEDC VA352 CH48 Q1 CR8. FUSELAGE Z=7.525

(ATK*19) (27 APR 74)

REFERENCE DATA

SREF = .9238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5403 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

SETA = -5.000 RN/L = 2.000
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 95.650 QI = 1.983 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000
 Z
 7.525 .0213 .0192 .0306 .0646 .0495 .0121

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 95.650 QI = 1.983 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000
 Z
 7.525 .0222 .0197 .0374 .0698 .0215 .0080

(ATKFD) (27 APR 74)

AEDC VA352 CH4B 01 ORB. FUSELAGE Z=7.525

REFERENCE DATA

SREF = .9239 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5903 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 95.900 Q1 = 1.980 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.925 .0157 .0114 .0324 .0206 .0069 .0021

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 95.900 Q1 = 1.980 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.925 .0153 .0186 .0335 .0115 .0048 .0009

PARAMETRIC DATA

BETA = .000 RV/L = 2.000
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01 ORB. FUSELAGE 257.525

(ATKFE1) (27 APR 74)

REFERENCE DATA

SREF = .8236 50. FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = -5.000 RN/L = .500
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 91.950 Q1 = .518 HREF = .017

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.325 .0214 .0199 .0405 .0589 .0174 .0071

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 91.950 Q1 = .518 HREF = .017

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.325 .0235 .0236 .0572 .0263 .0116 .0048

(ATKF22) (27 APR 74)

AEDC VA352 OH4B Q1 CR8. FUSELAGE Z=7.525

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 93.400 Q1 = .523 HREF = .018

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0160 .0132 .0309 .0139 .0055 .0015

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 93.400 Q1 = .523 HREF = .018

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0166 .0188 .0220 .0086 .0037 .0008

PARAMETRIC DATA

BETA = .000 RN/L = .500
 B.FLAP = 10.000 ELEVON = 5.000
 HAW/HT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR OH48 (AEDC VA352)

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AEDC VA352 OH48 01 ORB. FUSELAGE Z=7.525

(ATK23) (27 APR 74)

REFERENCE DATA

SREF = .0238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RV/L = .900
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 93.433 QI = .521 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0151 .0130 .0302 .0239 .0089 .0038

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 93.433 QI = .521 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0159 .0152 .0321 .0127 .0052 .0012

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 93.433 QI = .521 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0161 .0186 .0213 .0073 .0036 .0006

AEDC VA392 CH48 01 CFB. FUSELAGE Z=7.525

(ATKF24) (27 APR 74)

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 BREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 25.000 T1 = 93.233 Q1 = .523 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0210 .0185 .0287 .0477 .0449 .0159

MACH (1) = 8.000 ALPHA (2) = 20.000 T1 = 93.233 Q1 = .523 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0216 .0206 .0409 .0328 .0175 .0064

MACH (1) = 8.000 ALPHA (3) = 35.000 T1 = 93.233 Q1 = .523 HREF = .018

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0230 .0237 .0563 .0237 .0112 .0031

PARAMETRIC DATA

BETA = -5.000 RN/L = .500
 S.FLAP = 10.000 ELEVON = 10.000
 HAWKNT = .900

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH48 (AEDC VA352)

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AEDC VA352 CH48 01 ORB. FUSELAGE Z=7.325

(ATKF25) (27 APR 74)

REFERENCE DATA

SREF = .8236 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

PARAMETRIC DATA

BETA = .000 RM/L = 2.000
 S.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

MACH (1) = 8.000 ALPHA (1) = 30.000 TI = 94.650 QI = 1.985 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.325 .0139 .0112 .0327 .0218 .0065 .0018

MACH (1) = 8.000 ALPHA (2) = 35.000 TI = 94.650 QI = 1.985 HREF = .035

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.325 .0139 .0179 .0325 .0116 .0047 .0010

AEDC VA332 OR48 C1 OR5, FUSELAGE 227.525 (ATK26) (27 APR 74)

REFERENCE DATA

REF = .8235 SQ.FT. XREF = .0000 IN.
 LREF = 22.5803 IN. YREF = .0000 IN.
 ZREF = 16.3919 IN. ZREF = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 30.000 T1 = 95.450 Q1 = 1.983 HREF = .035

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0211 .0189 .0297 .0639 .0463 .0117

MACH (1) = 8.000 ALPHA (2) = 35.000 T1 = 95.450 Q1 = 1.983 HREF = .035

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0222 .0197 .0369 .0766 .0203 .0086

PARAMETRIC DATA

BETA = -5.000 RV/L = 2.000
 S.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .930

DATE 12 DEC 74

TABULATED DATA LISTING FOR CH4B (AEDC VA352)

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(ATKF27) (27 APR 74)

AEDC VA352 CH4B Q1 ORB, FUSELAGE Z=7.325

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 DREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.325 .0140 .0137 .0220 .0494 .0313 .0075

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.325 .0152 .0122 .0235 .0474 .0098 .0043

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.367 QI = 3.936 HREF = .049

SECTION (1) ORBITER FUSELAGE

DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.325 .0199 .0187 .0282 .0225 .0065 .0018

PARAMETRIC DATA

BETA = .000 RM/L = 3.720
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900

AEDC VA332 CH4B Q1 ORB, FUSELAGE Z=7.525

(ATK28) (27 APR 74

REFERENCE DATA

SREF = .8238 SQ.FT. XMRP = .0000 IN.
 LREF = 22.5803 IN. YMRP = .0000 IN.
 EREF = 16.3919 IN. ZMRP = .0000 IN.
 SCALE = .0175 SCALE

MACH (1) = 8.000 ALPHA (1) = 25.000 TI = 97.300 QI = 3.930 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0206 .0197 .0262 .0370 .0365 .0326

MACH (1) = 8.000 ALPHA (2) = 30.000 TI = 97.300 QI = 3.930 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0208 .0178 .0283 .0454 .0797 .0287

MACH (1) = 8.000 ALPHA (3) = 35.000 TI = 97.300 QI = 3.930 HREF = .049

SECTION (1) ORBITER FUSELAGE DEPENDENT VARIABLE HU/HO

X/L .3000 .4000 .5000 .6000 .7000 .8000

Z

7.525 .0209 .0210 .0324 .0668 .0630 .0163

PARAMETRIC DATA

BETA = -5.000 RN/L = 3.720
 B.FLAP = 10.000 ELEVON = 10.000
 HAW/HT = .900